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Physical Habitat Analysis of Missouri River Main Stem Reservoir Tailwaters Using the Riverine Community Habitat Assessment and Restoration Concept (RCHARC)

by John M. Nestler, L. Toni Schneider
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Doug Latka
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Prepared for Headquarters, U.S. Army Corps of Engineers
and U.S. Army Engineer Division, Missouri River

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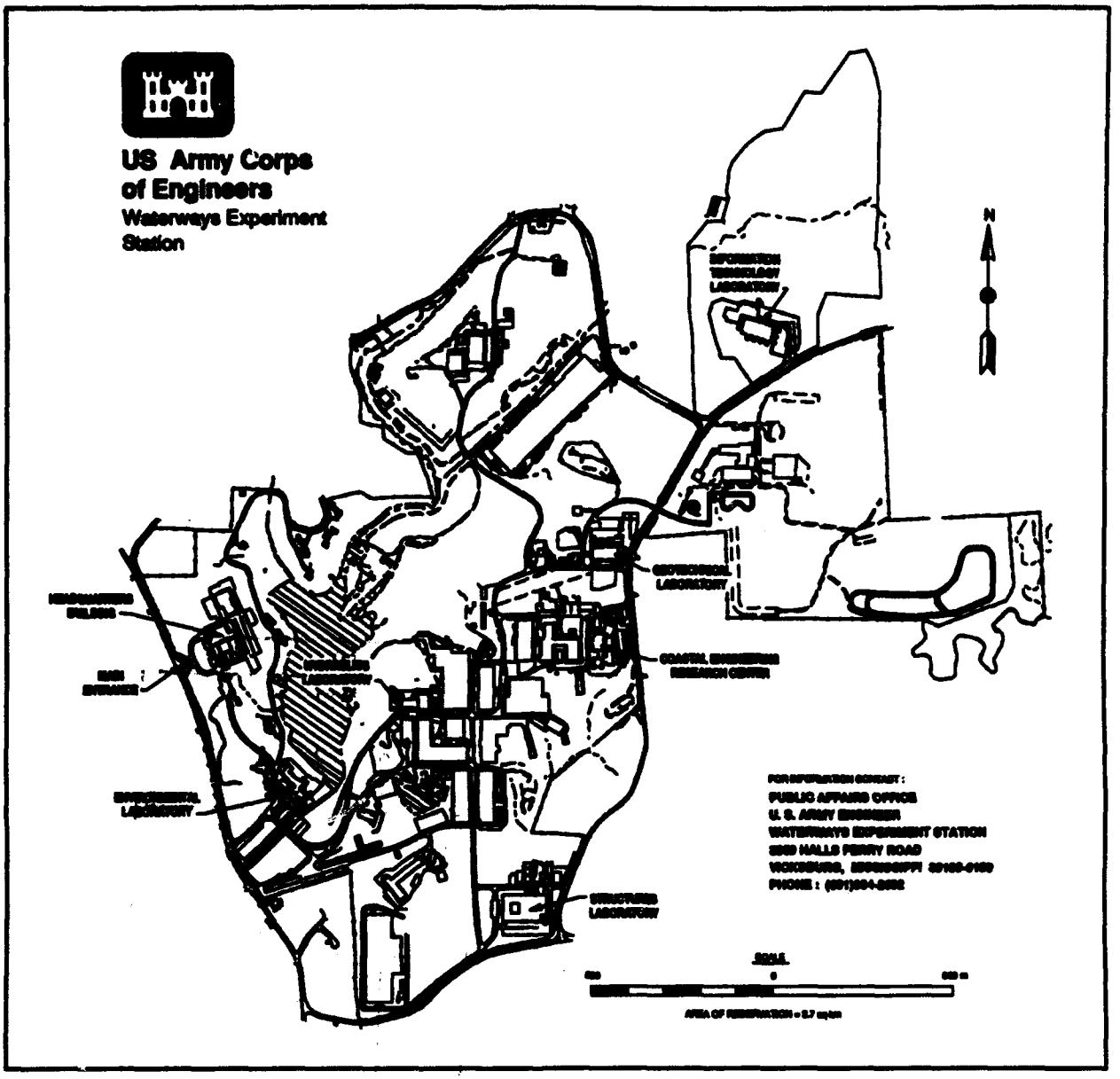

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PREFACE

This study was conducted by the Environmental Laboratory (EL) of the U.S. Army Engineer Waterways Experiment Station (WES). The work was funded by the U.S. Army Engineer Division, Missouri River (MRD), as part of the Missouri River Water Control Manual Review.

The report was prepared by Dr. John M. Nestler and Ms. L. Toni Schneider of the EL and Mr. Doug Latka of MRD. Dr. Nestler and Ms. Schneider prepared the software used in the analysis and performed the analysis. Mr. Latka obtained archived cross-section data and supervised the field collection of new cross-section information. Mr. Latka also provided information on channel processes acting to change the preproject cross sections to their present shapes. The hydraulic routing necessary to obtain the stage-discharge relationships used in the habitat analysis was performed by Mr. Brad Hall of the WES Hydraulics Laboratory. Mr. Hall also provided many helpful suggestions and recommendations during the course of the study.

Numerous individuals of the Omaha District and the MRD provided much of the information that was integrated and summarized in this report. Members of the Environmental Subcommittee, who provided review comments or otherwise shared their knowledge, are gratefully acknowledged, in particular, Mr. David Carlson of the U.S. Fish and Wildlife Service, Grand Island, NE, and Mr. Larry Hesse of the Nebraska Game and Parks Commission, Norfolk, NE.

Portions of the technology used to perform this study were developed under the Environmental Impact Research Program (EIRP). Dr. Roger Saucier, EL, was EIRP Program Manager.

This study was prepared under the direct supervision of Dr. Mark S. Dortch, Chief, Water Quality and Contaminant Modeling Branch (WQCMB), and under the general supervision of Mr. Donald L. Robey, Chief, Environmental Processes and Effects Division, and Dr. John Harrison, Director, EL. Technical review was provided by Ms. Dottie Hamlin-Tillman and Mr. Tom Cole of the EL. Mr. Terry Gerald, AScI Corporation, and Mr. Daniel Thompson, WQCMB contract student, generated some of the figures used in the text.

At the time of publication of this report, Director of WES was Dr. Robert W. Whalin. Commander was COL Bruce K. Howard, EN.

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CONTENTS

CONVERSION FACTORS, NON-SI TO SI UNITS OF MEASUREMENT

Non-SI units of measurement used in this report can be converted to SI units as follows:

Multiply	By	To Obtain
cubic feet	0.02831685	cubic meters
feet	0.3048	meters
miles (US statute)	1.609347	kilometers

PHYSICAL HABITAT ANALYSIS OF MISSOURI RIVER MAIN STEM RESERVOIR TAILWATERS USING THE RIVERINE COMMUNITY HABITAT ASSESSMENT AND RESTORATION CONCEPT (RCHARC)

PART I: INTRODUCTION

Background

The main stem Missouri River reservoir system extends from Montana to Nebraska and includes the following reservoir projects: Fort Peck Dam (river mile (RM) 1771.5), Garrison Dam (RM 1389.9), Oahe Dam (RM 1072.3), Big Ben Dam (RM 987.4), Fort Randall Dam (880.0), and Gavins Point Dam (RM 811.1). The U.S. Army Engineer Division, Missouri River (MRD), controls, maintains, and conserves water resources to provide for flood control, navigation, irrigation, power generation, recreation, water quality, water supply, and fish and wildlife protection and enhancement by regulating the releases from these dams. The degree to which preimpoundment flows are regulated depends upon project purposes. Alteration of preimpoundment flows ranges from relatively long-term seasonal changes required to support navigation or to provide for downstream flood protection to extremely short-term changes required for peaking hydropower generation.

Economic development in the basin, in addition to the changing demographic, social, and land use patterns, is placing increased demands on the natural resources in the system. Operation of the main stem Missouri River system of dams impacts several natural resource categories, including inpool reservoir fish resources, wetlands, wildlife, and downstream fish resources. Efforts by MRD to continue fostering economic development in the basin while simultaneously protecting environmental quality require the availability of predictive tools that can be used to balance the developmental and environmental needs of the region. This report documents the approaches and underlying rationale used to comparatively assess the effects of physical habitat changes resulting from alternative reservoir operations on the native warmwater riverine fish community in the tailwaters of Fort Peck, Garrison, Fort Randall, and Gavins Point Dams.

Problem

MRD had no systematic assessment tools available to analyze the effects of reservoir operation on physical habitat for native riverine fishes occurring in those reaches of the main stem Missouri River affected by reservoir operation. This prevented MRD from developing and documenting operational plans that optimize economic and natural resource categories in the main stem Missouri River. Assessment tools are required to predict and manage the environmental effects of reservoir operation to facilitate optimal use of this valuable resource. For example, a major water diversion may potentially impact fish in the system by altering flow regimes and water quality. Conversely, implementation of measures beyond those required to maintain and protect environmental quality of the system may preclude drawing benefits from other uses of water in the main stem system.

Objective

The objective of this part of the Missouri River Master Water Control Manual Review and Update Study is to develop simple relationships between flow and habitat values that allow MRD to predict the tailwater habitat value downstream of each reservoir for each operational alternative.

Purpose

Discharge-habitat relationships can be used by MRD as a simplified method for relating the effects of reservoir operation on downstream habitat conditions for warmwater fishes as part of the trade-off analysis between competing uses of reservoir storage.

Modeling Strategy

MRD proposes to evaluate each operational alternative using a long-range planning model, the LRS, to predict monthly reservoir stages and monthly reservoir discharges for each reservoir (U.S. Army Engineer (USAE) Division, Missouri River 1992). The operating rules for each alternative will be run separately by the LRS model using the 93-year hydrological record available for the Missouri River. The LRS model will generate a unique set of stages

and discharges characteristic of each alternative. The only data available to evaluate the alternatives are the unique monthly stages and discharges available for each alternative and data that are associated with the 93-year hydrological record. Consequently, the approach used to model tailwater habitat must be restricted to those variables that are predicted by the LRS model or whose trends can be derived from historical data linked to the 93-year hydrological record.

If habitat assessment methodology can be constructed within these restrictions, the MRD will be able to run the LRS model and pass the output directly to a module predicting reservoir-specific tailwater habitat values for each flow alternative. Other resource categories can be assessed in a conceptually parallel method to generate information that can be used to complete the trade-off analysis.

MRD has requested that the effects of reservoir operation on fish habitat be expressed as a "value function," i.e., each daily average discharge has an associated habitat value ranging from 0.0 to 1.0, with 0.0 representing the minimum value and 1.0 representing the maximum value. Value functions can be formulated separately for different tailwaters and months, if necessary. The assessment procedure would then proceed as follows:

a. The LRS predicts monthly flow estimates for each alternative over the 93-year period of record.

b. Value functions are formulated for each tailwater and month.

c. Each monthly flow predicted by the LRS model is replaced by an associated habitat value.

d. The effect of each alternative is obtained by summing (or integrating in some other way) the resulting habitat values over the 93-year period of record.

e. The alternatives can then be evaluated against each other or against a standard to rank the alternatives and provide the rationale for selecting optimal operational plans.

Assessing the effects of reservoir operation is complicated by the choice of the "no-action" alternative. MRD has determined that the no-action alternative is defined by the present system of rules used to operate the main stem Missouri River dams. Ordinarily, the no-action alternative serves as an implicit standard against which other alternatives can be evaluated. In this case, the no-action alternative is itself an operational alternative (and not an unregulated condition) whose habitat value has not been quantified.

We propose the use of a "standard of comparison," against which all alternatives, including the no-action alternative, can be ranked. Thus, the

habitat impact of each alternative is first quantified against the standard of comparison. The habitat value of each alternative flow, including the no-action alternative, is then ranked using the standard of comparison as the impact gauge. The habitat impacts of the project alternatives can then be evaluated against the habitat value of the no-action alternative.

Approach

The "value function" assessment framework developed by MRD requires that a systematic procedure be developed to determine the habitat value of each monthly flow for each tailwater. Various methods are available to relate flow to fish habitat value (Reiser, Wesche, and Estes 1989). The most commonly applied methodology, the Physical Habitat Simulation System (PHABSIM) of the Instream Flow Incremental Methodology (IFIM), developed by the U.S. Fish and Wildlife Service (USFWS) (Milhous, Updike, and Schneider 1989), has received considerable criticism for applications on large, warmwater river systems (Bain and Boltz 1989; Nestler, in preparation). Even if adequate habitat suitability information were available and the IFIM were considered defensible for this application, the short time frame available for the study prevents their formulation for the numerous warmwater fishes occurring in the Missouri River system.

Additionally, major alterations in channel morphology and flow regime make the development of defensible suitability curves problematic. As Tyus (1992) points out, it is difficult to develop suitability curves for impacted species in highly modified systems because the system is probably deficient in one or more critical habitat components. It is inherently difficult to directly measure habitat features that are missing or rare. Therefore, it is unlikely that habitat suitability curves developed in the impacted system will capture all necessary habitat features required by the target species. Additionally, to develop a single value that relates the value of a particular flow alternative to the entire warmwater fish community would be nearly impossible using suitability curves as the basis of the analysis. The approximately 60 species and four life stages per species would require that the flow requirements of nearly 250 species be determined, summarized, and integrated.

While use of suitability information to define the habitat requirements of large warmwater fishes does not seem to be technically desirable or logistically possible, sufficient literature information is available that suggests

that fishes do respond to depth and velocity patterns, including fishes in large warmwater rivers (Bain, Reed, and Scheidegger 1991). In fact, Bain points out that the distribution of warmwater fishes in the Cahaba River system of Alabama, a large southeastern warmwater river system, can be largely explained using broad depth and velocity categories.

PART II: RIVERINE COMMUNITY HABITAT ASSESSMENT AND RESTORATION CONCEPT

Based on all of the above considerations, a new approach was developed to relate the effects of flow alterations on aquatic biota. Called the Riverine Community Habitat Assessment and Restoration Concept (RCHARC), this system combines conceptual elements of the Index of Biotic Integrity (IBI) (Karr et al. 1986) and the PHABSIM system. Like the IBI, RCHARC requires use of a river system as the basis of comparison, that is, a "comparison standard" for the analysis against which the various project alternatives can be evaluated. The comparison standard river system (CSRS) is considered to represent the ideal habitat conditions, both in terms of channel configuration and seasonally varying flow characteristics, for the aquatic community in the project river system. The CSRS can be selected based on professional consensus, physical similarity to the project system, or similarity of the aquatic community in the standard system to what is desired in the project system. The CSRS can be a nearby river system, reaches of the river further upstream or downstream of the project and not impacted by the project, or the project river reach but evaluated in a "without-project" condition.

For this study, the CSRS was considered to be the preproject Missouri River channel under preproject flow conditions. This choice was based on several considerations. First, channel modification resulting from flow regulation and disruption of downstream sediment transport has been documented on numerous occasions (e.g., USAE District, Omaha 1989). A concomitant decline in those species that comprise the native warmwater fish community of this river seems apparent (Schmulbach 1974, Gardner and Stewart 1987, Pfleiger and Grace 1987, and Hesse et al. 1989). These same authors have speculated that the decline in these species is related to the impacts of regulation on a variety of factors, including alteration in downstream physical habitat.

For this study, is was assumed that a return to preproject habitat conditions for both flow and channel characteristics should provide optimum physical habitat for the warmwater fish community of the Missouri River, all other factors being equal. Indeed, so many habitat factors are influenced by depth and velocity conditions in the channel, such as organic matter transport, substrate composition, and bed form, that a return to preproject flow conditions would also tend to return these flow-associated factors closer to their preproject conditions. In the context of a RCHARC assessment, a project

alternative that provides depth and velocity conditions closer to the CSRS, in this case the preproject Missouri River reaches associated with each tailwater, will rank higher than a project alternative that provides less similar conditions.

Although the RCHARC does not directly assess impacts on species using life stage-specific suitability curves, this information is implicit in the methodology. For a given flow, a distribution of depth and velocity is associated with that flow (Figure 1, left abscissa). These distributions represent the habitat template upon which the community is structured. As Bain, Reed, and Scheidegger (1991) have pointed out, some species will ordinate along shallow portions of the depth distribution and others will ordinate out on deeper portions of the depth distribution. Thus, the composition of the fish community will be determined by the distribution of depth/velocity, all other factors being equal. Changes in the frequency distribution of depth and velocity will result in associated changes in the warmwater fish community. A shift in the frequency distribution of depth that reduces the amount of shallow water will favor species that require deeper water (Figure 1).

Competition and predation are included indirectly in RCHARC since the physical habitat of the standard system also provides the template upon which competition and predation are structured. Thus, duplication of the physical structure of the standard system in the project system will also provide a template for interspecies interactions such as predation and competition.

The RCHARC summarizes physical habitat in rivers fundamentally differently than the methods employed in the PHABSIM system. Normally, instream flow studies using a habitat-based approach (the IFIM representing the most common approach) use point-by-point measures or predictions of depth and velocity in cells of cross sections under different discharges and relate each point to its suitability to a particular target life stage. The suitability curve in turn parallels the idea of simulating and evaluating habitat on a point-by-point basis. That is, each point is evaluated relative to a scale of 0 to 1 without consideration of other points (Figure 2). However, biologists have often observed that the habitat requirements for many aquatic species are based on more than simple point-by-point evaluations. For example, a predatory fish may select deeper, slower water as a velocity shelter, but the slower water will often be near faster water that will transport drift or other food entrained in the water (Hughes and Dill 1990). A more complete

analysis may indicate that much of the food eaten by the predatory fish may be produced in a specific part of the river such as a riffle.

Depiction of the habitat requirements of such a stream fish becomes increasingly cumbersome in a methodology that focuses on point-by-point analyses, but can be evaluated more easily by a methodology based on cumulative frequencies of habitat features. Depiction of a stream reach in terms of frequency distributions of depth and velocity is more likely to capture the stream heterogeneity having value to aquatic biota both at the population and community levels than a method that focuses on point-by-point analyses. Furthermore, if a cell is the level of analysis for a species, the appropriate level of analysis for the community is a frequency analysis of the cell conditions in a reach. The stream worker can then focus on differences between the CSRS and the project alternatives to understand the habitat requirements of some species.

The wholistic perspective of the RCHARC provides a better framework to evaluate the system-level differences between the CSRS and the project streams by better describing the fluvial-geomorphic factors that affect fish habitat (Hill, Platts, and Beschta 1991). The system-level perspective is applied later in this report using the Gavins Point tailwater as an example to better determine how the project alternatives for the Missouri River differ from the CSRS.

An approach based on frequency analyses is easier to apply for a community-level analysis than a point-by-point approach. In the point-by-point analysis, the stream researcher must first determine the habitat requirements of a number of life stages, species, or guilds. Creation of defensible suitability curves for even one species can be difficult and time consuming (Bovee 1986).

A large warmwater river system such as the Cahaba River, Alabama, can have nearly 100 species, each of which can have several life stages. Attempting to create the necessary suitability curves, determine the flow-habitat relationships based on each curve, integrating the population-level information to make community-level statements, and then distilling this information to facilitate wise decision-making is a daunting task. A more feasible approach is to find a reach of river that contains a healthy community to use as a standard for analysis.

Rather than attempting to unweave the complex tapestry of habitat requirements for each species, the RCHARC simply compares the underlying

patterns of depths and velocities in the two systems and uses the results as the basis of the community-level impact analysis. The degree of impact is roughly approximated by the degree to which the physical habitat changes between the target and standard systems.

Once completed, the RCHARC analysis can provide information useful at a population level of analysis by identifying major differences in habitat between the standard and target system. These differences in physical habitat patterns can be evaluated, qualitatively or quantitatively, to determine habitat features whose absence may account for the decline of endemic, rare, or endangered species.

PART III: IMPLEMENTING THE RCHARC

Overview of Steps in Applying the RCHARC

The RCHARC is composed of a number of discrete steps, which are summarized in the following paragraphs. Application of RCHARC to the four main stem Missouri River dams having significant tailwaters is discussed in the succeeding sections. The RCHARC analysis is interpreted for the Gavins Point tailwater.

Channel descriptions

The CSRS channel and project alternative channels must each be identified and described using fine-resolution cross-section information. Sufficient information for the CSRS and project alternatives must be available to allow the description of discharge-specific depth and velocity distributions.

Hydrologic summaries

The dominant hydrologic patterns associated with the CSRS and each of the project alternatives must be summarized using summary statistics (e.g., median flows or flow extremes) and time steps adequate to describe the hydrologic behavior of both systems.

Stage-discharge information

Stage-discharge information for the CSRS and project alternative cross sections must be obtained from hydraulic models, gauge information, or field measurements. The stage-discharge information is combined with channel cross-section information to generate discharge-specific depth and velocity distributions for the CSRS and the project alternative channels.

Depth and velocity distributions

The hydraulic information is summarized as percent distributions of depth and velocity for both the CSRS and project alternatives. The percent distributions for depth and velocity (treated as separate variables) for each of the project alternatives are evaluated for their similarity to the CSRS (Figure 3) at appropriate time steps (such as monthly) using qualitative inspection, correlation analysis, or other methods of determining degree of similarity.

Relative impacts of project alternatives

The correlation coefficients for each project alternative are summed, month-by-month, over the period of the hydrological record. The project alternative that provides depth and velocity conditions most nearly like the

CSRS will have the largest sum, and the project alternative having the least similarity should have the smallest sum.

Correction for topwidth

In some cases it may be possible for the topwidths of the CSRS and project alternative channels to vary substantially even though the depth or velocity distributions are very similar. As an option, the correlation coefficients can be linearly adjusted by the degree to which project alternative channel topwidths differ from the CSRS channel topwidths.

Trends and patterns in the results

As with any methodology that distills complex systems into single number rankings, it is important to explore the significance of differences and similarities among project alternatives and between the project alternatives and the CSRS.

Channel Descriptions

Physical habitat in the CSRS and the project alternatives must be described using channel cross-section data. The transect data must be of sufficient detail to allow adequate characterization of aquatic habitat--usually requiring at least 20 points in the channel and a vertical accuracy of 0.5 ft* for a system as large as the Missouri River. A sufficient number of transects must be identified and selected to characterize the habitat variability of a river reach. A minimum of 4 to 8 transects is usually required.

MRD has collected and archived channel cross-section data for the Missouri River at approximately 5-year intervals beginning with cross sections collected prior to or immediately after closure of each of the dams and extending to the present. Each cross section consists of approximately 100 points with a vertical accuracy of 0.1 to 0.2 ft. Available channel cross sections were evaluated by MRD, and between 6 and 10 cross sections for each tailwater were selected to represent major habitats in the river from the dam to the headwaters of the next downstream reservoir. Major habitats included backwaters, chutes, main channels, and sandbar areas. For each tailwater, cross sections included major habitat features in approximately the same proportion as they existed in the entire river reach. State and Federal

* A table of factors for converting non-SI units of measurement to SI units is presented on page 4.

biologists used aerial photographs, existing cross sections, and site visits to select transects for measurement. Preregulation transects were selected from historic data collected at the same locations or close as possible to the transects selected for measurement.

For each tailwater, the cross sections were separated into four categories. For Gavins Point, characterized by steady or gradually varying releases, the cross sections were categorized by topwidth as narrow, wide, transitional, and divided. For application to Fort Randall, Garrison, and Fort Peck, which are characterized by dynamic flows associated with peaking hydropower, the cross sections were categorized by distance from the dam as immediate, near, middle, and distant. Cross sections had to be categorized by distance from the dam because the stages associated with a specific peaking discharge at the dam change as the releases move downstream. That is, the highest discharge is attenuated, and the lowest discharge increases as the generation wave moves downstream from the dam.

After selection of cross sections from MRD archives, each location was resurveyed under both a high- and low-flow condition using standard stream-gauging methods to define the channel conditions for the project alternatives and to collect two velocity calibration data sets that would be used to calibrate the hydraulic models used to simulate lateral cross-section velocities. Two resurveys were used to obtain a better approximation of the channel shape associated with two separate dominant flows.

Channel cross-section and velocity data for this predominantly sandbed river were collected at both high and low flows because the channel shape might change between the two flow extremes. This reduced the risk that a channel cross section obtained under high-flow conditions would not be representative of channel shape at lower discharges, particularly at the edges of this predominantly sandbed channel. However, comparison of the high- and low-flow cross sections at both flows at similar locations indicated a minor change in channel shape. The two velocity calibration data sets were collected near the end points of the flow ranges representative of most of the operational alternatives, ensuring that any change in flow pattern would be captured by the two calibration data sets.

The complete channel data set available for RCHARC analysis consisted of river cross-section information collected at the same location (or usually within several tenths of a mile) for each of the tailwaters prior to or near closure of the dam immediately upstream and again in 1989 or more recently.

Detailed descriptions of the channel cross-section information available for each tailwater are given later in this section.

The Gavins Point cross sections were resurveyed 13-19 March and 10-19 July 1989 by the Nebraska Game and Parks Commission, the U.S. Geological Survey (USGS), and the U.S. Army Corps of Engineers. Flows ranged from 8,000 to 10,500 cfs during the March data collection and were approximately 30,000 cfs during the July measurements. Eight transects in the reach were selected for data collection, each representing a different river type. Only six locations were surveyed during March, because of bad weather and the increased releases from Gavins Point for the start of the navigation season. In March, cross-section data were collected at RM 778.90, 780.92, 783.61, 786.73, 797.50, and 804.28. For July, cross sections were at 755.56, 778.90, 780.92, 783.61, 786.73, 793.60, 797.50, and 804.28. The preproject cross sections were collected from 1955 through 1959.

Fort Randall cross sections were resurveyed during April 1991 to characterize high-flow conditions under discharges ranging from 30,800 to 34,220 cfs. Low-flow conditions at discharges ranging from 6,040 to 9,060 cfs were characterized during a November 1990 resurvey. Fort Randall cross sections were located at RM 841.1, 851.1, 853.4, 855.3, 867.0, and 872.2. Preproject cross sections were collected in 1952, 1954, 1955, and 1960.

Garrison low-flow conditions were characterized during resurveys conducted during October-November 1990 by the USGS (District Office, Bismarck, ND), under discharges ranging from 11,100 to 11,900 cfs. High-discharge data were collected during April 1991 at discharges ranging from 29,900 to 33,900 cfs. Cross-section locations were at RM 1268.0, 1309.8, 1323.7, 1332.7, 1334.4, 1360.4, 1371.4, and 1376.7. Preproject cross sections were collected in 1946, 1954, 1955, and 1957.

Fort Peck high-flow channel conditions were characterized during resurveys conducted in April and May 1991 under discharges ranging from 7,750 to 18,500 cfs. Low-flow channel conditions were characterized during resurveys during April 1991 under discharges ranging from 3,120 to 12,200 cfs. Fort Peck cross-section locations were at RM 1566.5, 1567.5, 1607.6, 1612.0, 1616.4, 1625.1, 1630.9, 1642.9, 1662.2, 1682.3, 1714.7, 1719.8, 1731.6, 1751.5, and 1754.9. Preproject cross sections were collected in 1936, 1937, 1942, 1947, and 1948.

Hydrologic Summaries

The CSRS consists of both channel characteristics and long-term discharge patterns. River discharges vary by location on the Missouri River because of tributary inflow. Monthly discharges for the period of record to characterize the CSRS were obtained from LRS model output using a run in which the storage of the reservoirs was "held out." Therefore, the output of the LRS model would simulate the hydrologic behavior of the Missouri River as though the dams had not been constructed. These "holdout runs" were used to generate preproject hydrological patterns.

Use of the LRS model allowed the MRD to simulate the preproject hydrology of the Missouri River before data were consistently available for all present gauge locations. Additionally, the LRS model could simulate the period of record after the projects were constructed as though the dams did not exist. Use of existing gauge information to characterize the preproject Missouri River provided a limited hydrological record (as short as 24 years for one site), inadequate to describe relatively long-term drought-flood cycles. The LRS model could provide a 93-year hydroperiod to more completely characterize the preproject hydrological conditions.

Variation in flow from year to year can have important influences on the distribution of aquatic organisms. Variation in flows may favor species that evolved in the unregulated river system under naturally occurring discharge and channel conditions at the expense of exotic or introduced species. Consequently, consideration of only the median or mean flow may not adequately relate the effects of the preproject hydrology on the integrity of the native warmwater fish community. Three categories of preproject flows were considered to define a CSRS: low-flow (75-percent exceedance), median-flow (50-percent exceedance), and high-flow (25-percent exceedance) conditions for each of the four tailwater reaches (Table 1).

The annual monthly time series associated with each flow category for each year was derived from analysis of data generated by the LRS model and provided to WES by MRD. An artificial "median flow year" was composed of the median flow from each month. For example, the median flow year for the Gavins Point tailwater was synthesized by obtaining the 50-percent exceedance flow for each month for the Yankton Gauge (a gauge in the tailwater of Gavins Point).

A conceptually similar process was used to synthesize the low- and high-flow CSRSs for the Gavins Point tailwater and the CSRSs for the other tailwaters. During application of the RCHARC to the 93-year period of hydrologic record, each water year under the "holdout" operation of the LRS was assigned to one of the three exceedance categories according to rules developed by MRD.

Hydraulic Information

Following the recommendations of Nestler, Milhous, and Layzer (1989), the flow description of the Missouri River was separated into two categories: stage-discharge relationships and lateral flow patterns (Figure 4).

Stage-discharge

Stage-discharge information was available from several sources. Preproject stage-discharge information was supplied by the MRD for each separate tailwater, based on HEC-2 predictions using preproject cross sections. These HEC-2 applications were recalibrated by the Hydrology and Hydraulics Branch of the USAE District, Omaha (MRO), specifically for this study. Questions concerning the HEC-2 calibration and verification should be addressed to MRO.

Methods used to describe project alternative stage-discharge relationships varied by site. For the Gavins Point site, stage-discharge information was obtained from staff gauges, from HEC-2 predictions made by MRO, and from the two velocity calibration data sets collected by the USGS. The stage-discharge relationships from the different techniques and channel data must all overlay onto the same datum.

Unfortunately, the stage-discharge data from these different sources all appeared to be tied to slightly different datums. The source of error could not be determined. However, since the velocity calibration data set included the channel configuration and appeared to offer the most recent and most rigorously controlled data set, we decided to adjust the elevations from the HEC-2 predicted stage-discharge relationships and staff gauges to align with the two stage-discharge points collected during the field trips.

Similar discrepancies between predicted and observed stages, although not as severe as those at the Gavins Point sites, were found at the other three tailwaters. In each case, predicted stages were aligned to the measured stages obtained during the collection of the two velocity calibration data sets.

The field and analytical methods used to simulate or synthesize the CSRS and project channels were developed and implemented before the scenarios were completely developed for the study. Consequently, it was discovered that the upper flow ranges that we could simulate were occasionally less than the maximum flows occurring in the CSRS, particularly for the 25-percent exceedance flows. For this study, the correlation coefficients for the greater-than-60,000-cfs-flow increment were arbitrarily established to be the same as the 60,000-cfs-flow increment. It is recommended that the Environmental Subcommittee decide how best to address this shortcoming in the availability of hydraulic information.

Determining the depth and velocity pattern in the tailwaters receiving peaking releases was performed in three steps. First, stage-discharge information in the these tailwaters was obtained from the UNET model (Nestler and Schneider, in preparation; Appendix J) run over a series of incremental steady-state discharges thought to include and bracket most project alternative discharges. The UNET model was generally not run at discharges exceeding bankfull capacity because of inadequate calibration data.

In the second step, time-varying runs of the UNET model were used to predict the increase in the minimum flow associated with a range of peaking operation as the peaking wave moved downstream for Fort Randall and Garrison Dams. A linear increase in the minimum discharge to the mean discharge at the end of the reach was used for the Fort Peck application. The pattern of increasing minimum flows with downstream distance associated with each release pattern for the Fort Randall and Garrison tailwaters was fit to the logistic equation as

$$MINQ = \frac{K}{1 + \left([(K - F)/F] * \{\exp [-R*(X + ADD)]\}\right)} \qquad (1)$$

where

MINQ = minimum flow

K = average daily discharge (obtained from the LRS model)

F = constant representing a hypothetical beginning minimum discharge

R = rate of increase in minimum flow with downstream distance

X = distance from dam

ADD = constant added to logistic equation based on professional judgment

The logistic equation is well described and has been used for a variety of purposes that require description of processes that follow a sigmoid pattern. Inspection of the predictions of the UNET model indicated that the minimum flows followed a truncated sigmoid pattern, i.e., the early approximately linear part of the pattern is missing and the release patterns appear to match closely the exponentially increasing and then flattening predicted by the logistic equation.

The value of the logistic equation is its ability to describe the downstream pattern of discharge using only a single coefficient (R = rate of increase in discharge as the peak moved downstream) compared to a power function or other function that would require two or more coefficients that would have to estimated. Although it is not possible to obtain rigorous goodness-of-fit estimates for nonlinear regression, Draper and Smith (1986) and Kimura (1980) suggest that goodness-of-fit estimates used for linear regression can be used as a general guide. The F-statistics associated with each separate fit of the logistic equation to each scenario were between 10,000 and 100,000. This range of F values indicates extremely good fit of the logistic equation to the downstream discharge pattern.

Multiple regression was used to relate the value of the single coefficient to the boundary conditions. The results of the analysis are plotted in Figures 5 and 6 and presented in Table 2. Note that all statistical fits were highly significant, and the deviation between the regression-predicted discharges and UNET-modeled discharges were, with few exceptions, within 10 percent. The greatest deviations occurred within several miles of the dam. These deviations will not affect the analysis because they are upstream of the midpoint of the most upstream reach. The minimum flow was used as the basis of the analysis because we assumed that the habitat available under a peaking release pattern would be best expressed as the minimum flow and that the median or high flow would overrepresent available habitat.

The midpoint of each transect grouping within each tailwater was then identified. Each transect grouping (i.e., immediate, near, middle, distant) was treated as a homogeneous section of river. Midpoint centers for Fort Randall were at RM 874.8, 865.4, 853.6, and 841.1; for Garrison, RM 1377.9, 1356.7, 1332.1, and 1288.9; and for Fort Peck, RM 1721.9, 1646.05, 1604.2, and 1567.0. The distant reach of the Fort Peck tailwater downstream of the

Yellowstone River confluence was treated as a separate reach. The minimum discharge applied to the midpoints of each transect grouping was then predicted using the relationships developed from the linear regression.

Thus, for any set of downstream discharge patterns predicted by the UNET model, it was possible to synthesize these patterns using the logistic equation and an estimate of the R coefficient from the regression analysis. These simplifications could then be coded into a postprocessor program for the LRS model that would allow prediction of downstream discharge patterns necessary to select a discharge for use in the RCHARC.

Lateral flow pattern

IFG-4, one of the hydraulic programs within the PHABSIM system, was used to develop the lateral flow (velocity) pattern at each transect using information from stage-discharge relationships, channel cross-section information, and two velocity calibration data sets. The hydraulic component of the PHABSIM system assumes that the shape of the channel does not change with streamflow over the range of flows being simulated. The results of the hydraulic calculations are water surface elevations and velocities. The water surface elevations are one-dimensional in that the same value is used for any point on a cross section. In contrast, the velocity varies from point to point across any cross section.

Several options within the IFG-4 program are available to generate cell depths and velocities for a given discharge. The IFG-4 program can employ several methods to synthesize cell-by-cell velocities if calibration velocities are unavailable. For this application the hydraulic radius option was used to separate the total discharge at each transect into cells. This option results in deeper cells having greater water velocities. Alternatively, velocity measurements made in the field under steady flows at one or more discharges can be used for calibration. The measured velocities are used to solve Manning's equation for Manning's n for each cell. The calculated cell-specific n values are then used to generate estimates of velocities for each cell over a range of simulated discharges. After estimating a lateral velocity pattern based on the calculated Manning's n, the IFG-4 program checks the calculated water surface elevation against the given water surface elevation provided from another source (described in the stage-discharge section above) and then, if necessary, modifies all cell velocities by a common factor to raise or lower the estimated water surface elevation until it matches the given water surface elevation.

The flow pattern often changes as channel discharge changes. Consequently, it is important to select either an intermediate discharge for the velocity calibration data set that can be applied to a narrow range of flows or to select two or more velocity calibration data sets depending upon the discharge range being simulated and the rate at which the flow pattern changes. For the Missouri River application, two velocity calibration data sets were collected for each tailwater--one near the upper limit of normal (nonflood control) operation and one near the lowest discharge that would be ordinarily released under most alternatives. Calibration of the IFG-4 program to measured velocities is generally superior to using hydraulic radius for estimating lateral flow patterns (Milhous, Updike, and Schneider 1989).

For the project channel, lateral flow pattern predictions were based on the two velocity calibration data sets. The lower velocity calibration discharge was applied from the lowest simulated stage-discharge pair to about the midpoint of the flow difference between the two calibration data sets. In the case of the Gavins Point application, the low-flow calibration data set collected at about 11,000 cfs was applied from 6,000 to 18,000 cfs. The high-flow velocity calibration data set was applied from the midpoint discharge to the highest discharge simulated. For the Gavins Point application, the high-flow velocity calibration data set collected at about 30,000 cfs was applied from 18,000 to 50,000 cfs. The preproject channel cross sections did not include any velocity measurements. Channel velocities were predicted by the IFG-4 program based on hydraulic radius for the preproject channel cross sections.

Channel geometry, velocity, substrate, and discharge information were provided by MRD for each reservoir from field surveys. From this information, two IFG-4 input data sets were developed for each reservoir tailwater. One IFG-4 input data set was developed for the discharges covered by the low-flow velocity calibration data sets, and one set for the discharges covered by the high-flow velocity calibration data sets. The IFG-4 program generates a binary output data set for each input data set. The IFG-4 output data sets are composed of tables of cell-by-cell predicted depths and velocities for each cross section and discharge. The IFG-4 binary output data sets were converted to ASCII using the LSTVDX program of the PHABSIM system. The two output data sets associated with each transect were appended after processing by the LSTVDX program. Standard options were used in the IFG-4 program except that the HABTAM-HABTAV method of using vertical velocities instead of average

cell velocities was employed. IFG-4 was run for the sequences of discharges indicated in Table 3.

An example of IFG-4 output processed by the LSTVDX program is presented in Table 4. Three sets of IFG-4 data sets were processed for each tailwater. Preproject IFG-4 data sets were generated in which the velocities were based on hydraulic radius, since measured velocities were unavailable for these transects. Two postproject data sets were created for each tailwater. For the first postproject data set, the calibration velocities were stripped out and the IFG-4 program generated output velocities based on hydraulic radius. The second postproject data set included calibration velocities, and the IFG-4 program predicted output velocities based on measured velocities. For the second postproject data set, velocities were based on cell-specific Manning's n obtained from the two velocity calibration data sets.

Depth and Velocity Distributions

The three ASCII-format tables of depth and velocity generated for each transect were then evaluated statistically using the Statistical Analysis System (SAS Institute, Inc. 1988). The following steps were involved in the statistical analysis:

a. Cell-by-cell information obtained from the LSTVDX program was processed to eliminate cells having zero depths (cells above the water surface) for each transect.

b. Cells from similar cross-section categories within each tailwater were combined, e.g., all cells from wide transects were placed into a single category and individual cross sections were no longer distinguished.

c. Depths were rounded to the nearest 0.5 ft, and velocities were rounded to the nearest 0.25 fps using the ROUND function of SAS (SAS Institute, Inc. 1988).

PROC FREQ of the SAS was employed to generate percent cumulative frequencies of depth and velocity for each of the three IFG-4 output data sets for each discharge and each separate category of transects for each tailwater.

Inspection of the resulting cumulative frequency distributions indicated that they closely followed the general pattern exhibited by the logistic equation. Frequency distributions for depth and velocity for each of the three IFG-4 output data sets (preproject, project without calibration velocities, and project with calibration velocities) for discharge, channel category, and tailwater were then fit to the logistic equation

$$CPD = \frac{K}{1 + [[(K - F)/F] * [\exp(-R * X)]]} \quad (2)$$

where

CPD = cumulative percent composition

K = apparent maximum cumulative percent (usually near 100)

F = percent composition of first depth or velocity increment

R = rate of change from one cumulative depth/velocity increment to the next

X = midpoint of depth/velocity increment

The fit of the logistic equation to the cumulative frequency distributions (one distribution for each discharge, channel category, and tailwater) was highly significant. Table 5 presents a summary of the statistics for the fit of the logistic equation for the Gavins Point tailwater.

Curve fitting was employed for two reasons. First, the lower Missouri River is a sandbed stream characterized by zones of uniform depths. However, field observation indicates that these uniform depths may gradually increase or decrease in either the upstream or downstream direction. Distributions of depth and velocity based on curve-fitted data would tend to smooth out the effect of a particularly abundant depth or velocity category and would thus be less likely to be influenced by the localized characteristics of a specific location on the river and more likely to represent a generalized feature of the river. This was a particular concern for the Gavins Point reach, for which relatively few cross sections were available and which could be easily biased by a high percentage of a particular depth or velocity category in our limited selection of cross sections.

Second, curve-fitting allowed us to use functions to describe each of the distributions. Functions can be stored, adjusted, and manipulated more efficiently than raw data. Third, with curve-fitting, we could estimate the cumulative frequency distribution of intermediate discharges (discharge increments not simulated) by linear interpolation of the coefficients between neighboring discharges.

Corrections to the preproject velocity predictions were made by estimating the error associated with use of hydraulic radius to predict velocity distributions on project data. The project IFG-4 data sets can be used to evaluate the error associated with the use of hydraulic radius to estimate

velocity (by running the IFG-4 program with and without the velocity calibration data sets). The differences (residuals) between the velocity cumulative frequency distributions represent the error in use of the hydraulic radius to predict velocity. Inspection of the patterns in the residuals indicated that each could be fit by a quadratic equation.

It was decided that adding back the residuals in the form of a quadratic equation (Figures 7-9) to the preproject data set would provide the most accurate estimate of the preproject cumulative velocity distribution because the preproject cross sections were at or very near the locations of the project cross sections, the river had not moved or meandered substantially, and with a few exceptions, the topwidths had not changed dramatically.

If the study objective had been restricted to the ranking of alternatives to a standard, we would have used synthesized velocities based on hydraulic radius for both the CSRS and project channels. However, the approaches used in this report may be employed for river restoration and thus would require greater realism in the predictions. We suggest that this approach for correcting velocity predictions be evaluated by the USFWS for improving the accuracy of the IFG-4 predictions when calibration velocities are unavailable.

At this point in the analysis using the RCHARC, a discharge-specific cumulative frequency distribution for depth and velocity (corrected as described above) was available for the preproject transects for each tailwater and each channel category within each tailwater, along with corresponding information for the project channel. Simple frequency distributions could be derived from the cumulative frequency distributions by subtracting from each cumulative depth or cumulative velocity increment the cumulative increment immediately preceding it (e.g., Figures 10 and 11). The final product of this step was discharge-specific simple frequency distributions of depth and velocity for each channel category within each tailwater. Additionally, by summing the topwidths of each cell for each channel category within each tailwater, it was also possible to estimate the discharge-specific topwidths associated with the preproject and project channels. Discharges were rounded to the nearest thousand cubic feet per second.

Relative Impacts of Project Alternatives

The depth and velocity distributions associated with each project alternative were expressed differently than the depth and velocity patterns associated with the CSRSs. Depth and velocity distributions associated with each alternative were not assessed directly, but rather interpolated from incremental sequences of flows for each site. For example, project alternative flows were simulated for 6,000, 8,000, 10,000, 12,000, 14,000, 16,000, 20,000, 24,000, 28,000, 32,000, 36,000, 40,000, 46,000, and 50,000 cfs for the Gavins Point reach. The lower flow limit was determined by the limitations of the HEC-2 model to simulate flows less than 6,000 cfs, and the upper limit was determined by the discharge at which overbank flow occurred. The MRD felt that stages for overbank flows could not be accurately simulated. The CSRSs were characterized by distributions of depth and velocity associated with specific water years on a month-by-month basis. For example, the depth distribution for January (11,000 cfs) in a median water year was obtained by linear interpolation of the R and K coefficients of the logistic equation for 10,000 and 12,000 cfs. The water-year specific CSRS was described in terms of the depth and velocity distribution for each month.

The relative value of each alternative flow at a particular month for one of the three CSRSs was obtained by determining the similarity between the depth/velocity patterns associated with monthly CSRS flows and the depth/velocity increments used to evaluate the postproject channel (detailed description of the steps is shown in Figures 7, 12, 13, and 14). The impact of a particular operational alternative for one year could be determined by looking up its similarity to preproject distributions on a table of incremental project discharges versus preproject discharges (Appendixes A-E). Each of the 12 resulting similarities is summed to determine the impact of that alternative. The process can be expanded to include any number of months.

A variety of similarity metrics can be employed; however, for this analysis, the Pearson product-moment correlation analysis was used to relate how the depth or velocity categories varied between the CSRS and a series of incremental project flows. At the beginning of this study, other statistics were evaluated, but the ranking of coefficients of flow increments versus a particular historic flow did not change. Also, as pointed out by Clifford and Stephenson (1975), most methods of determining similarity produce the same

general patterns of results. However, further use of the RCHARC may determine that other statistics are more suitable.

Correction for Topwidth

It is possible to have similar depth or velocity distributions (habitat quality) but very different topwidths (habitat quantity). To account for differences in quantity between the CSRS and the project alternatives, we adjusted the correlations between the CSRSs and the project alternatives by a coefficient keyed to the difference between the preproject topwidth and the topwidths associated with each alternative flow increment. For example, if the topwidth of a historical flow was identical to a particular flow increment, no adjustment of the correlation coefficient was made. However, if the preproject topwidth at a flow associated with a particular month was less or more than a particular flow increment, the correlation coefficient was reduced by the ratio difference between the two topwidths as

$$ADJ\_COEF = COEF*\{[PRE\_TOP - ABS\ (PROJ\_TOP - PRE\_TOP)]/PRE\_TOP\}$$

where

ADJ_COEF = adjusted correlation coefficient
COEF = unadjusted correlation coefficient
PRE_TOP = CSRS (preproject) topwidth
ABS = absolute value function
PROJ_TOP = project topwidth

For each tailwater, 48 tables of correlation matrices were generated, categorized as follows:

a. Three water years (median, low, and high).
b. Two flow variables (depth and velocity).
c. Four channel categories (divided, narrow, transitional, and wide for Gavins Point tailwater; immediate, near, middle, and distant for the other tailwaters).
d. Two topwidth categories (adjusted and unadjusted).

The different channel categories for Gavins Point could be combined by weighting each category by the percent distance of the reach that it represented and summing the correlation coefficients (Figure 14). However, the peaking hydropower releases in the other tailwaters prevented simple summing

of the correlation coefficients for each reach at a single discharge to determine impact. Each of the reaches in the tailraces receiving peaking flows had to be treated separately until the downstream flow patterns could be recreated using regression relationships. Under peaking operations, the flows in the tailwater can vary from point to point so that it is not possible to assign a single discharge to all transects in the tailwater.

After the downstream flow pattern had been established, the appropriate correlation coefficients could be selected for each channel category based on the minimum flow received by that reach, weighted by the length of the reach, and summed to provide a one-number estimate of similarity between the project alternative and the CSRS.

The summed correlation coefficients represent the similarity of each tailwater to the CSRS for either depth or velocity, depending upon which variable was selected. Depending upon the water year, MRD could select the appropriate correlation coefficients to compare the alternative flows to preproject conditions. The resulting correlation coefficients would indicate the similarity between each of the flow increments versus the flow for that particular month. The more similar a flow increment was to a monthly preproject flow, the closer the correlation coefficient would approach 1.0. The more dissimilar the two flows, the closer the correlation would approach -1.0.

The theoretical range of correlation coefficients is 2.0, from -1.0 to 1.0. However, for each column within the correlation coefficients, the correlation range varied by water year, channel, category, and topwidth adjustment.

PART IV: TRENDS AND PATTERNS IN THE RESULTS

Discussion

Particular emphasis was placed on concept development, software development, and concept testing for the Gavins Point application. After this application was tested and verified, it was applied to Fort Randall, Garrison, and Fort Peck tailwaters. While time did not permit a detailed inspection of the results for Fort Randall, Garrison, and Fort Peck, the results for the Gavins Point application were evaluated to better understand how differences between the CSRS and the project channels were described by the RCHARC. The focus was on the trends and patterns in the results, and how these trends and results were summarized by the correlation coefficients.

Several channel processes were at work in the Gavins Point tailwater that have habitat implications. Degradation of the channel was occurring near each of the dams because the dam disrupted the downstream transport of sediment. The degraded sediment was transported downstream of Omaha, where it was deposited in the aggrading reaches of the river. These observations have been made on numerous occasions and are not unique to this study; however, when viewed from the perspective of an RCHARC analysis, they provide a unique insight into habitat conditions in the Missouri River.

The habitat changes in the Missouri River are best described by comparing CSRS (preproject) transects with project transects at similar locations (Figures 15-18). Several significant features become apparent. First, the elevations in the project channel have all been reduced by about 5 ft from the CSRS channel. Note also that the stage-discharge is in general compressed in the project cross sections compared with the CSRS cross sections. The compression is greatest for the two transects having the greatest topwidth and least for the two transects having the least topwidth. Perhaps the lack of sediment input to this reach has allowed the releases from the dam to scour out a more hydraulically efficient channel.* In support of this observation, the narrow transects are widening and the wider transects are narrowing when the project topwidths are compared to the preproject system, as though the river is "ditching." Ditching appears to be occurring in the wider reaches

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* Personal Communication, 1992, Brad Hall, Hydraulics Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

that offer the greatest habitat diversity and concomitantly should have an effect on the fish community (Kallemeyn and Novotny 1977).

The depths associated with the lowest discharge in the project channel are greater than the depths associated with lowest discharge in the preproject channel (Figures 15-18). The cause of the change in depths at low discharge between the preproject and postproject channel is unknown. However, the deeper initial depths are compensated by the reduced increase in stage as discharge increases in the project channel. By the time the project flows reach 50,000 cfs, they appear to have much the same depths as the 32,000-cfs flows in the CSRS. While the observations in the previous two paragraphs are speculative, they suggest that the degradation has had significant habitat implications.

Figures 19-22 present plots at monthly intervals that relate the similarity as correlation coefficients of the historical monthly flows to range of incremental project discharges. Note that the general form of these plots follows the value function format required by MRD to link the "native warmwater riverine fish community" resource category to the other resource categories (as part of the Missouri River Master Water Control Manual Review and Update Study) except that they are not standardized from 0.0 to 1.0. The flows used for the CSRS are listed in Table 1 under median flows for Gavins Point Dam. Figures 19 and 20 present topwidth unadjusted correlation coefficients for depth and velocity, respectively; Figures 21 and 22 present the same information except that the correlation coefficients have been adjusted for deviations from historical topwidths. On each of the 12 plots, the dotted vertical reference line represents the median flow for each month; the solid vertical reference line represents an arbitrary sequence of monthly flows selected by the authors to represent an imaginary project alternative.

Several trends in the patterns of the correlation coefficients are apparent. First, the correlation coefficients for the topwidth unadjusted depth correlation coefficients have an apparent bimodal shape. The initial minimum in the correlation coefficients for each month represents the discrepancy in depth observed at the lowest simulated flows. The first peak represents the point at which the depth distributions of the CSRS and project channels converge. Depth increases less quickly with discharge in the project channel than in the CSRS. Consequently, the depths in the CSRS "catch up" to the depths in the project channel. For the wide channel category, this appears to happen at about 20,000 cfs.

The correlation coefficients reach a mirimum, however, when the discharges in the CSRS for the wide and divided channel categories go full channel. (Full channel refers to the point at which the stage increases enough that all of the channel between the riverbanks is inundated.) There is no corresponding behavior in the project channel. The correlation coefficients then again increase as the flows in the CSRS go higher and increase their depth over the shallow parts of the channel, becoming deeper like the project channel. The dip in the columns of correlation coefficients corresponds to the threshold when the historical channel acquires a high percentage of shallow depths from going full bank (Figures 15 and 18).

Degradation has also reduced the connectivity of the main channel to chutes and backwaters (Figure 18). The elevations of the highest discharges are inadequate to flood these areas, limiting the availability of shallower water at high discharges. Consequently, side channels and other types of off-channel habitat are no longer a habitat feature of the degrading reaches of the regulated Missouri River during high discharges. Overbank areas are not available for fishes, and organic matter produced in the river margins can no longer be inundated by the flows. Riverine fishes that use this habitat feature could be impacted.

The compression of the stage-discharge relationship in the Gavins Point tailwater and the relatively large cross-sectional area available at lower flows in the project reach, compared to the preproject reach, also distorts the relationship between mean cross-section velocity and stage. At low discharge, the water velocity in the project river is reduced from the water velocity in the CSRS. However, because of the compression of the stage-discharge relationship in the project channel, eventually the average depth of the project reach will be the same as that of the CSRS as discharge increases in both channels. For depth in the wide channel category, a discharge of 14,000 cfs in the project channel has about the same depth distribution as a discharge of 25,000 cfs in the main channel (Figure 20).

A similar pattern of disruption would occur for velocity distributions; that is, the discharge at which the velocity distribution between the project and CSRS channels occurs would be different (and also different from the discharges at which the depth distributions were similar). It is well known that depth and velocity are correlated variables in rivers. It would appear that because of regulation, the correlation between depth and velocity is different between the CSRS and the project channel. While these conclusions are

speculative, they indicate the need to better understand how regulation may have affected the physical habitat features of warmwater fishes.

The change in the depth/velocity correlation between the project and the CSRS has a number of significant ramifications, only a few of which have been briefly addressed in this discussion. The alterations of the Missouri River from its preregulation conditions should be studied in much greater detail to better understand the effects of regulation and as a prelude for any restoration efforts on the Missouri River. The cycles of deposition and erosion are affected. In the CSRS channel, the low flow was more of an erosional feature than the project low-flow channel. Conversely, because the present high flows are inadequate to reach the overbank in most years, the present high flows that are relegated into the main channel are more erosional than the CSRS high flows (less conveyance at high flows in the project channel) and less likely to deposit organic matter than in the CSRS. Transport and storage of organic matter in streams is well known to affect the composition of the aquatic community.

Fish habitat is affected in several ways. First, because the correlation between depth and velocity has been altered by regulation, formulation of habitat suitability curves for detailed population studies must be done with considerable caution. The present habitat provided by the Gavins Point tailwater is considerably different from that provided by the CSRS. Suitability curves developed in the present Missouri River may be misleading if the effects of channel alteration are not considered.

Second, the availability of overbank areas or slower velocity areas is reduced at high flows. These effects are probably life stage-specific and cannot be discussed in detail in this report. It is almost as though the habitat characteristics associated with high and low flow have been partially reversed--low flows in the project channel provide significant cross-sectional area and considerable opportunity for storage of organic matter. Missouri River in-channel hydraulic characteristics are now out of synchrony with the hydraulic patterns in the CSRS.

The results provided by the RCHARC analysis are summarized in Figure 23. Trends and patterns in the correlations can be easily observed. This can be important in exploring alternatives if a particular alternative provides good habitat (high correlation coefficients) for most months but very low habitat for one or more months. In Figure 23, the median monthly flow is presented as the holdout flow. Note that the median flow does not provide the maximum

habitat value (maximum habitat value, 12) because of channel changes and distortions of the stage-discharge relationship.

Sources of Error and Uncertainty

As with any new methodology, we have formulated a number of suggestions for improving the approach, identified sources of error, and listed important caveats and assumptions. These are summarized below.

a. The discharges at which the CSRS cross sections were taken are unknown. The degree to which the cross sections may have changed at other discharges is unknown. Because the two calibration cross sections collected at each site for the project data differed little, this is not considered a major problem.

b. It is not possible to determine the error in the velocity predictions. Although the cross sections are reasonably similar between the CSRS data set and the project channel, it was not known, until the study was almost complete, that the slope of the stage-discharge relationship varies between CSRS and project channels. The differences in relative stage between the two data sets probably introduced a bias into the quadratic equation used for the velocity correction. Also, velocity is a derived variable (based on a calibration data set and not directly predicted like depth) in the project channel and a twice-derived variable in the CSRS. In the CSRS, velocities are first synthesized based on hydraulic radius and then adjusted with a correction factor.

c. As with any method of smoothing, some loss of information occurs when curves are employed instead of original data. However, given the highly significant fits of the curves to the data, information loss associated with curve fitting is not considered to be a problem, and in fact, curve-fitted data probably more accurately capture trends and patterns of depth and velocity in the transects.

d. Considerable problems were experienced in obtaining a consistent datum for each of the sites, particularly for the Gavins Point reach. Good hydrologic practice was followed; however, it is possible that stage errors remain in the analysis.

e. The method used to correct the velocity predictions for the CSRS channel will result in spurious self-correlation when the CSRS velocity distributions are compared to the project channels because a proportion of the distribution pattern in the project channel (that part represented by the quadratic equation) also occurs in the CSRS. Thus, the correlation coefficients at equivalent discharges will tend to be inflated. While the velocity correlations are useful and can provide insight to habitat conditions in the Missouri River, they should not receive the same credibility as the depth correlation coefficients unless sensitivity analyses are performed with both depth and velocity to determine if the pattern in the results is consistent between the two variables.

f. Multiple sources of existing and newly collected hydraulic and hydrologic data were employed in this study. No opportunity existed to independently verify some of the data in the study, particularly for the CSRS channel.

g. Most researchers are of the opinion that it is best to treat depth and velocity as a single bivariate variable. However, the time required to expand the CSRS concept to include both depth and velocity as a single variable was not available. At present, this is a shortcoming in the methodology that should be remedied in future applications.

h. Impact is expressed as a single number that integrates impact over a 93-year hydrologic record. However, many patterns will generate the same final estimate of total impact. The sequence of correlation coefficients should be evaluated to separate the alternatives that generate many years of average habitat from those alternatives that generate a mixture of extremely high and extremely low habitat values.

PART V: CONCLUSIONS AND RECOMMENDATIONS

The study generated the following conclusions and recommendations:

a. The correlation coefficients generated for the Gavins Point tailwater could be interpreted and explained; in fact, correlation may be too sensitive a statistic for all applications of the RCHARC. RCHARC provided insight to trends and patterns of physical habitat in this reach that could not have been determined in any other way. Based on the Gavins Point analysis, the RCHARC was able to summarize the effects of different operational alternatives on habitat for warmwater fishes, assuming that the CSRS represented the habitat ideal for this community.

b. Given the multiple uncertainties in the velocity data sets, the use of depth correlation coefficients is suggested as the basis for the impact assessment. The velocity correlation coefficients can be used if sensitivity analysis suggests that the two variables are providing much the same information.

c. Velocity distributions should be considered and discussed as information supplemental to the depth information.

d. The Gavins Point tailwater of the Missouri River is often presented as the last remaining "natural" reach in the system. This analysis has described a number of habitat alterations resulting from regulation in this reach. A truly "natural" segment of the Missouri River may no longer exist.

e. The RCHARC analysis both quantified and explained alterations in the Gavins Point reach of the river. An expansion of the RCHARC analysis would be valuable for restoration planning on the main stem Missouri River.

f. The RCHARC analysis was performed at an ecosystem level to describe major changes in the hydraulics and hydrology of the Gavins Point reach. The patterns and trends identified in this analysis should serve to focus future fishery and ecological investigations.

g. The RCHARC analysis considered only physical habitat changes between the CSRS and the project channel. Clearly, habitat changes are a major feature of the impacts of different alternatives; however, because hydraulics affects everything else, other variables such as water temperature changes, water turbidity, and nutrient cycles should also be evaluated.

h. Statistics other than the median could be used to summarize the long-term impact of each operational alternative. Possible options include minimum habitat analysis, increased weighting of key months, and the use of special rules (two sequential poor-habitat years are emphasized).

i. Like many analysis methodologies, the RCHARC can generate numbers, and the numbers can be ranked, summed, and processed to support conclusions. However, it is critical that a RCHARC analysis be done at a level of rigor to understand differences in fluvial processes between the CSRS and the project alternatives that have ecological significance.

j. Habitat for threatened and endangered species needs to be considered in light of RCHARC analysis first, and then in context of standard habitat-based approaches. Development of habitat suitabilities for threatened and endangered species must acknowledge the major shifts in depth and velocity patterns that have occurred in the Missouri River, even in the reach that is normally considered "natural." Certain critical habitat features may be much less abundant in the project river. It is, therefore, difficult to determine utilization that allows complete development of habitat suitability curves.

k. In some months and some channel categories, the correlation coefficients do not reach 0.5, whereas in other months the correlation coefficients approach 1.0. Standardizing smooths out these differences.

l. The interpretation of the RCHARC analysis should also be performed for the Fort Randall, Garrison, and Fort Peck tailwaters (to at least the rigor of the Gavins Point analysis) to describe and understand the effects of river regulation on downstream habitat. The effects of river regulation on the warmwater fish community must be fully understood, particularly for threatened and endangered species whose decline has been associated with regulation.

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Table 1

Project Flows

Month	Flow,* thousands CF														
	Gavins Point			Fort Randall			Garrison			Fort Peck**			Yellowstone†		
	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L
1	12.0	15.0	9.0	10.5	13.5	8.5	10.5	13.0	8.5	5.5	7.0	4.5	6.0	7.0	4.0
2	16.5	21.0	13.5	14.5	19.0	12.0	13.5	16.0	11.0	6.5	8.5	5.5	7.0	9.0	6.0
3	40.0	50.0	32.0	36.0	48.0	28.0	25.0	31.0	21.0	9.0	12.0	7.0	10.0	14.0	8.0
4	38.0	49.0	27.0	35.0	45.0	24.0	27.0	35.0	20.0	10.5	13.5	8.0	12.5	16.0	9.5
5	47.0	59.0	34.0	45.0	57.0	31.0	37.0	47.0	28.0	16.5	23.0	12.0	19.0	25.0	13.5
6	81.0	106.	55.0	78.0	104.	51.0	70.0	90.0	46.0	23.0	32.0	14.0	24.0	34.0	15.5
7	42.0	59.0	29.0	39.0	55.0	28.0	37.0	52.0	25.0	10.5	16.0	7.5	12.0	17.0	8.5
8	19.0	24.0	14.0	17.0	22.0	12.0	15.5	20.0	11.5	6.5	8.5	5.0	7.0	8.0	5.5
9	17.0	23.0	13.5	14.5	20.0	12.0	14.0	16.5	11.0	6.0	7.0	4.5	6.5	8.0	5.0
10	17.5	22.0	14.0	15.5	20.0	12.0	14.0	18.0	11.5	6.0	8.0	5.0	7.0	8.0	6.0
11	16.5	20.0	13.5	14.5	17.0	11.0	13.5	16.0	11.0	6.5	7.5	5.0	7.0	8.0	6.0
12	11.0	14.0	8.0	9.5	13.0	7.0	10.0	12.5	8.5	7.5	11.5	5.5	6.5	7.0	5.5

* M = medium flow, H = high flow, and L = low flow.
** Values for Fort Peck tailwater, excluding Yellowstone reach.
† Values for Yellowstone reach of Fort Peck tailwater.

Table 2

Summary of Statistical Analysis to Predict R Coefficient to Represent Downstream Pattern of Minimum Flow Increase

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Fort Randall Dam
Variable LQ_NDIFF Entered R-square = 0.92765848 C(p) = 8.92237603

DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00117812	0.00058906	64.12	0.0001
Error	10	0.00009187	0.00000919		
Total	12	0.00126999			

Parameter Variable	Standard Estimate	Type II Error	Sum of Squares	F	Prob>F
INTERCEP	0.01646904	0.01352782	0.00001362	1.48	0.2514
LMINQQ	0.02621698	0.00254428	0.00097550	106.18	0.0001
LQ_NDIFF	-0.01060734	0.00231641	0.00019265	20.97	0.0010

Garrison Dam
Variable MAX_MEAN Entered R-square = 0.90256330 C(p) = .

DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00031241	0.00031241	64.84	0.0001
Error	7	0.00003373	0.00000482		
Total	8	0.00034613			

Parameter Variable	Standard Estimate	Type II Error	Sum of Squares	F	Prob>F
INTERCEP	0.10021027	0.00247348	0.00790812	1641.37	0.0001
MAX_MEAN	-0.01824381	0.00226563	0.00031241	64.84	0.0001

Table 3

Sequences of Discharges (cfs) for IFG4 Runs on Gavins Point, Fort Randall, Fort Peck, and Garrison

Reservoir	Preregulation	High	Low
Gavins Point	6,000	20,000	6,000
	8,000	24,000	8,000
	10,000	28,000	10,000
	12,000	32,000	12,000
	14,000	36,000	14,000
	16,000	40,000	16,000
	20,000	46,000	
	24,000	50,000	
	28,000		
	32,000		
	36,000		
	40,000		
	46,000		
	50,000		
Fort Randall	6,000	18,000	3,000
	8,000	25,000	6,000
	10,000	35,000	9,000
	12,000	45,000	12,000
	14,000	60,000	
	16,000		
	18,000		
	20,000		
	22,000		
	24,000		
	26,000		
	28,000		
	30,000		
	32,000		
	34,000		
	36,000		
	38,000		
	40,000		
	42,000		
	44,000		
	46,000		
	48,000		
	50,000		
Fort Peck	3,000	14,000	4,000
	4,000	16,000	6,000
	6,000	20,000	8,000
	8,000	24,000	10,000
	9,000	32,000	12,000

(Continued)

Table 3 (Concluded)

Reservoir	Preregulation	High	Low
Fort Peck (Continued)	10,000		
	12,000		
	14,000		
	16,000		
	18,000		
	20,000		
	24,000		
	25,000		
	34,000		
	35,000		
	45,000		
	60,000		
Garrison	4,000	18,000	4,000
	6,000	20,000	6,000
	8,000	24,000	8,000
	10,000	28,000	10,000
	12,000	32,000	12,000
	14,000	36,000	14,000
	16,000	40,000	16,000
	18,000	46,000	
	20,000	50,000	
	24,000	60,000	
	28,000		
	32,000		
	36,000		
	40,000		
	46,000		
	50,000		
	60,000		

Table 4

Example of IFG-4 Output Processed

by LSTVRX Program

A1566.60	14000.0	1851.15			
B 2023.000	2000.000	0.00	0.00	90.00	
B 2043.000	2023.000	0.00	0.00	90.00	
B 2067.000	2043.000	2.65	1.01	90.00	
B 2087.000	2067.000	9.15	2.31	90.00	
B 2107.000	2087.000	7.65	2.05	90.00	
B 2127.000	2107.000	10.35	2.51	90.00	
B 2142.000	2127.000	14.85	3.19	90.00	
B 2157.000	2142.000	18.05	3.64	90.00	
B 2172.000	2157.000	17.15	3.52	90.00	
B 2187.000	2172.000	17.65	3.58	90.00	
B 2197.000	2187.000	18.55	3.71	90.00	
B 2207.000	2197.000	19.25	3.80	90.00	
B 2217.000	2207.000	17.85	3.61	90.00	
B 2237.000	2217.000	12.75	2.88	90.00	
B 2257.000	2237.000	8.65	2.22	90.00	
B 2277.000	2257.000	8.15	2.14	90.00	
B 2297.000	2277.000	6.65	1.86	90.00	
B 2317.000	2297.000	8.75	2.24	90.00	
B 2347.000	2317.000	8.15	2.14	90.00	
B 2367.000	2347.000	7.05	1.94	90.00	
B 2387.000	2367.000	7.65	2.05	90.00	
B 2417.000	2387.000	6.85	1.90	90.00	
B 2447.000	2417.000	6.25	1.79	90.00	
B 2477.000	2447.000	6.85	1.90	90.00	
B 2517.000	2477.000	4.85	1.51	90.00	
B 2557.000	2517.000	4.35	1.40	90.00	
B 2607.000	2557.000	2.55	0.98	90.00	
B 2657.000	2607.000	0.35	0.26	90.00	
B 2709.000	2657.000	0.00	0.00	90.00	
B 2816.000	2709.000	0.00	0.00	90.00	
B 2822.000	2816.000	0.00	0.00	90.00	
B 2897.000	2822.000	0.85	0.47	90.00	
B 2947.000	2897.000	2.65	1.01	90.00	
B 2997.000	2947.000	3.15	1.13	90.00	
B 3047.000	2997.000	2.65	1.01	90.00	
B 3087.000	3047.000	3.55	1.22	90.00	
B 3117.000	3087.000	5.35	1.61	90.00	
B 3147.000	3117.000	7.15	1.96	90.00	
B 3177.000	3147.000	8.55	2.21	90.00	
B 3207.000	3177.000	5.05	1.55	90.00	
B 3240.000	3207.000	0.00	0.00	90.00	
B 3256.000	3240.000	0.00	0.00	90.00	
B 3263.000	3256.000	0.00	0.00	90.00	
B 3267.000	3263.000	0.00	0.00	90.00	
B 3280.000	3267.000	0.00	0.00	90.00	
B 3291.000	3280.000	0.00	0.00	90.00	

Note: Row A contains the river mile, discharge, and water surface elevation. Row B contains the left and right bank adjacent cell boundaries, cell depth, cell velocity, and cell cover.

Table 5

Summary Statistics for Logistic Equation Fitted to the Logistic Equation for Cumulative Depth Frequency Distribution

---------- CHANCATE=DIVIDED DISCHARGE=6000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	265388.36125	88462.78708
Residual	33	196.13955	5.94362
Uncorrected Total	36	265584.50080	
(Corrected Total)	35	16997.21240	

---------- CHANCATE=DIVIDED DISCHARGE=8000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	276241.42995	92080.47665
Residual	35	143.39165	4.09690
Uncorrected Total	38	276384.82160	
(Corrected Total)	37	25361.04337	

---------- CHANCATE=DIVIDED DISCHARGE=12000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	285582.97976	95194.32659
Residual	36	194.31627	5.39767
Uncorrected Total	39	285777.29603	
(Corrected Total)	38	24209.77055	

---------- CHANCATE=DIVIDED DISCHARGE=14000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	284169.10381	94723.03460
Residual	36	204.11066	5.66974
Uncorrected Total	39	284373.21447	
(Corrected Total)	38	24725.08661	

(Continued)

Note: F-statistic (obtained by dividing the mean square error of the regression by the mean square of the residuals) varies between 800 and 10,000. This range of F-values for linear regression would be highly significant.

Table 5 (Continued)

---------- CHANCATE=DIVIDED DISCHARGE=16000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	292358.03272	97452.67757
Residual	37	165.26034	4.46650
Uncorrected Total	40	292523.29306	
(Corrected Total)	39	26056.44776	

---------- CHANCATE=DIVIDED DISCHARGE=20000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	236273.03927	78757.67976
Residual	32	353.54431	11.04826
Uncorrected Total	35	236626.58358	
(Corrected Total)	34	25577.73558	

---------- CHANCATE=DIVIDED DISCHARGE=24000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	247519.30844	82506.43615
Residual	34	244.80791	7.20023
Uncorrected Total	37	247764.11636	
(Corrected Total)	36	30334.70309	

---------- CHANCATE=DIVIDED DISCHARGE=28000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	245734.08387	81911.36129
Residual	34	218.67071	6.43149
Uncorrected Total	37	245952.75458	
(Corrected Total)	36	30077.09131	

---------- CHANCATE=DIVIDED DISCHARGE=32000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	256871.73201	85623.91067
Residual	35	175.91347	5.02610
Uncorrected Total	38	257047.64548	
(Corrected Total)	37	29273.43862	

(Continued)

Table 5 (Continued)

CHANCATE=DIVIDED DISCHARGE=36000

Source	DF	Sum of Squares	Mean Square
Regression	3	260060.00144	86686.66715
Residual	36	170.70553	4.74182
Uncorrected Total	39	260230.70698	
(Corrected Total)	38	32843.17545	

CHANCATE=DIVIDED DISCHARGE=40000

Source	DF	Sum of Squares	Mean Square
Regression	3	263398.33931	87799.44644
Residual	37	154.50805	4.17589
Uncorrected Total	40	263552.84736	
(Corrected Total)	39	35582.29413	

CHANCATE=DIVIDED DISCHARGE=46000

Source	DF	Sum of Squares	Mean Square
Regression	3	256348.85239	85449.61746
Residual	37	141.02930	3.81160
Uncorrected Total	40	256489.88169	
(Corrected Total)	39	37989.78081	

CHANCATE=DIVIDED DISCHARGE=50000

Source	DF	Sum of Squares	Mean Square
Regression	3	259684.67020	86561.55673
Residual	38	159.33291	4.19297
Uncorrected Total	41	259844.00311	
(Corrected Total)	40	41816.06876	

CHANCATE=NARROW DISCHARGE=6000

Source	DF	Sum of Squares	Mean Square
Regression	3	180344.36916	60114.78972
Residual	31	2398.68840	77.37705
Uncorrected Total	34	182743.05756	
(Corrected Total)	33	47985.19447	

(Continued)

Table 5 (Continued)

---------- CHANCATE=NARROW DISCHARGE=8000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	180029.60872	60009.86957
Residual	32	2713.44884	84.79528
Uncorrected Total	35	182743.05756	
(Corrected Total)	34	51835.41913	

---------- CHANCATE=NARROW DISCHARGE=10000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	176364.49118	58788.16373
Residual	32	2819.36468	88.10515
Uncorrected Total	35	179183.85586	
(Corrected Total)	34	52433.37459	

---------- CHANCATE=NARROW DISCHARGE=12000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	176940.38899	58980.12966
Residual	33	3263.81681	98.90354
Uncorrected Total	36	180204.20580	
(Corrected Total)	35	54348.19673	

---------- CHANCATE=NARROW DISCHARGE=14000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	176638.63821	58879.54607
Residual	34	3565.56760	104.86964
Uncorrected Total	37	180204.20580	
(Corrected Total)	36	57749.71049	

---------- CHANCATE=NARROW DISCHARGE=16000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	173915.71599	57971.90533
Residual	34	3381.12676	99.44490
Uncorrected Total	37	177296.84275	
(Corrected Total)	36	57900.14660	

(Continued)

Table 5 (Continued)

---------- CHANCATE=NARROW DISCHARGE=20000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	134544.22265	44848.07422
Residual	27	322.30776	11.93732
Uncorrected Total	30	134866.53041	
(Corrected Total)	29	31305.30231	

---------- CHANCATE=NARROW DISCHARGE=24000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	139257.65773	46419.21924
Residual	28	238.66998	8.52393
Uncorrected Total	31	139496.32771	
(Corrected Total)	30	31392.26413	

---------- CHANCATE=NARROW DISCHARGE=28000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	149427.90958	49809.30319
Residual	30	161.62847	5.38762
Uncorrected Total	33	149589.53804	
(Corrected Total)	32	34261.94473	

---------- CHANCATE=NARROW DISCHARGE=32000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	145123.08041	48374.36014
Residual	31	157.55730	5.08249
Uncorrected Total	34	145280.63771	
(Corrected Total)	33	36702.77300	

---------- CHANCATE=NARROW DISCHARGE=36000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	151618.34925	50539.44975
Residual	33	150.33897	4.55573
Uncorrected Total	36	151768.68823	
(Corrected Total)	35	41937.69929	

(Continued)

Table 5 (Continued)

---------- CHANCATE=NARROW DISCHARGE=40000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	163275.05655	54425.01885
Residual	36	142.43654	3.95657
Uncorrected Total	39	163417.49309	
(Corrected Total)	38	46660.14727	

---------- CHANCATE=NARROW DISCHARGE=46000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	182259.00020	60753.00007
Residual	37	299.82518	8.10338
Uncorrected Total	40	182558.82538	
(Corrected Total)	39	37804.43083	

---------- CHANCATE=NARROW DISCHARGE=50000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	183610.51235	61203.50412
Residual	38	371.07824	9.76522
Uncorrected Total	41	183981.59059	
(Corrected Total)	40	42019.87349	

---------- CHANCATE=TRANSIT DISCHARGE=6000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	53013.350870	17671.116957
Residual	11	50.260730	4.569157
Uncorrected Total	14	53063.611601	
(Corrected Total)	13	14209.541080	

---------- CHANCATE=TRANSIT DISCHARGE=8000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	56844.156635	18948.052212
Residual	12	52.122412	4.343534
Uncorrected Total	15	56896.279047	
(Corrected Total)	14	15245.577630	

(Continued)

Table 5 (Continued)

---------- CHANCATE=TRANSIT DISCHARGE=10000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	60179.623312	20059.874437
Residual	13	63.876907	4.913608
Uncorrected Total	16	60243.500220	
(Corrected Total)	15	15652.239235	

---------- CHANCATE=TRANSIT DISCHARGE=12000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	64816.485981	21605.495327
Residual	14	99.050356	7.075025
Uncorrected Total	17	64915.536336	
(Corrected Total)	16	15330.741086	

---------- CHANCATE=TRANSIT DISCHARGE=14000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	69063.216803	23021.072268
Residual	15	183.892873	12.259525
Uncorrected Total	18	69247.109676	
(Corrected Total)	17	17359.067286	

---------- CHANCATE=TRANSIT DISCHARGE=16000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	69874.573443	23291.524481
Residual	15	376.517068	25.101138
Uncorrected Total	18	70251.090511	
(Corrected Total)	17	14283.250243	

---------- CHANCATE=TRANSIT DISCHARGE=20000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	147681.27493	49227.09164
Residual	28	157.82264	5.63652
Uncorrected Total	31	147839.09757	
(Corrected Total)	30	33046.05280	

(Continued)

Table 5 (Continued)

CHANCATE=TRANSIT DISCHARGE=24000

Source	DF	Sum of Squares	Mean Square
Regression	3	148884.19251	49628.06417
Residual	29	188.95754	6.51578
Uncorrected Total	32	149073.15005	
(Corrected Total)	31	36980.79941	

CHANCATE=TRANSIT DISCHARGE=28000

Source	DF	Sum of Squares	Mean Square
Regression	3	146261.03154	48753.67718
Residual	29	193.96908	6.68859
Uncorrected Total	32	146455.00061	
(Corrected Total)	31	36668.21689	

CHANCATE=TRANSIT DISCHARGE=32000

Source	DF	Sum of Squares	Mean Square
Regression	3	153487.96026	51162.65342
Residual	30	164.71370	5.49046
Uncorrected Total	33	153652.67397	
(Corrected Total)	32	34855.71577	

CHANCATE=TRANSIT DISCHARGE=36000

Source	DF	Sum of Squares	Mean Square
Regression	3	159722.41820	53240.80607
Residual	32	166.16008	5.19250
Uncorrected Total	35	159888.57828	
(Corrected Total)	34	37650.67619	

CHANCATE=TRANSIT DISCHARGE=40000

Source	DF	Sum of Squares	Mean Square
Regression	3	164031.54347	54677.18116
Residual	33	205.89148	6.23914
Uncorrected Total	36	164237.43495	
(Corrected Total)	35	36855.30653	

(Continued)

Table 5 (Continued)

CHANCATE=TRANSIT DISCHARGE=46000

Source	DF	Sum of Squares	Mean Square
Regression	3	173455.48732	57818.49577
Residual	35	172.68530	4.93387
Uncorrected Total	38	173628.17261	
(Corrected Total)	37	37634.01262	

CHANCATE=TRANSIT DISCHARGE=50000

Source	DF	Sum of Squares	Mean Square
Regression	3	176623.94008	58874.64669
Residual	36	198.76118	5.52114
Uncorrected Total	39	176822.70126	
(Corrected Total)	38	38524.19515	

CHANCATE=WIDE DISCHARGE=6000

Source	DF	Sum of Squares	Mean Square
Regression	3	164914.15726	54971.38575
Residual	21	201.62280	9.60109
Uncorrected Total	24	165115.78006	
(Corrected Total)	23	17778.79290	

CHANCATE=WIDE DISCHARGE=8000

Source	DF	Sum of Squares	Mean Square
Regression	3	157294.08089	52431.36030
Residual	21	273.01540	13.00073
Uncorrected Total	24	157567.09629	
(Corrected Total)	23	20932.23726	

CHANCATE=WIDE DISCHARGE=10000

Source	DF	Sum of Squares	Mean Square
Regression	3	158604.68939	52868.22980
Residual	22	238.49590	10.84072
Uncorrected Total	25	158843.18529	
(Corrected Total)	24	24254.28964	

(Continued)

Table 5 (Continued)

CHANCATE=WIDE DISCHARGE=12000

Source	DF	Sum of Squares	Mean Square
Regression	3	163919.29259	54639.76420
Residual	23	180.74781	7.85860
Uncorrected Total	26	164100.04040	
(Corrected Total)	25	25496.61848	

CHANCATE=WIDE DISCHARGE=14000

Source	DF	Sum of Squares	Mean Square
Regression	3	158572.55655	52857.51885
Residual	23	172.33217	7.49270
Uncorrected Total	26	158744.88872	
(Corrected Total)	25	26458.21832	

CHANCATE=WIDE DISCHARGE=16000

Source	DF	Sum of Squares	Mean Square
Regression	3	165361.09117	55120.36372
Residual	24	128.65409	5.36059
Uncorrected Total	27	165489.74526	
(Corrected Total)	26	27189.91800	

CHANCATE=WIDE DISCHARGE=20000

Source	DF	Sum of Squares	Mean Square
Regression	3	235232.07482	78410.69161
Residual	34	180.30950	5.30322
Uncorrected Total	37	235412.38432	
(Corrected Total)	36	30957.34345	

CHANCATE=WIDE DISCHARGE=24000

Source	DF	Sum of Squares	Mean Square
Regression	3	250844.80073	83614.93358
Residual	35	186.37862	5.32510
Uncorrected Total	38	251031.17935	
(Corrected Total)	[illegible]	25351.37738	

(Continued)

Table 5 (Continued)

---------- CHANCATE=WIDE DISCHARGE=28000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	264462.24240	88154.08080
Residual	36	332.70368	9.24177
Uncorrected Total	39	264794.94608	
(Corrected Total)	38	23525.46113	

---------- CHANCATE=WIDE DISCHARGE=32000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	272801.66684	90933.88895
Residual	37	462.43630	12.49828
Uncorrected Total	40	273264.10314	
(Corrected Total)	39	25365.87897	

---------- CHANCATE=WIDE DISCHARGE=36000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	298889.60924	99629.86975
Residual	39	502.76844	12.89150
Uncorrected Total	42	299392.37768	
(Corrected Total)	41	24277.68115	

---------- CHANCATE=WIDE DISCHARGE=40000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	301489.90375	100496.63458
Residual	40	472.75769	11.81894
Uncorrected Total	43	301962.66144	
(Corrected Total)	42	28722.56358	

---------- CHANCATE=WIDE DISCHARGE=46000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	314097.73009	104699.24336
Residual	42	346.39820	8.24758
Uncorrected Total	45	314444.12829	
(Corrected Total)	44	32042.78763	

(Continued)

Table 5 (Concluded)

---------- CHANCATE=WIDE DISCHARGEE=50000 ----------

Source	DF	Sum of Squares	Mean Square
Regression	3	309407.11366	103135.70455
Residual	42	341.75651	8.13706
Uncorrected Total	45	309748.87017	
(Corrected Total)	44	34715.36237	

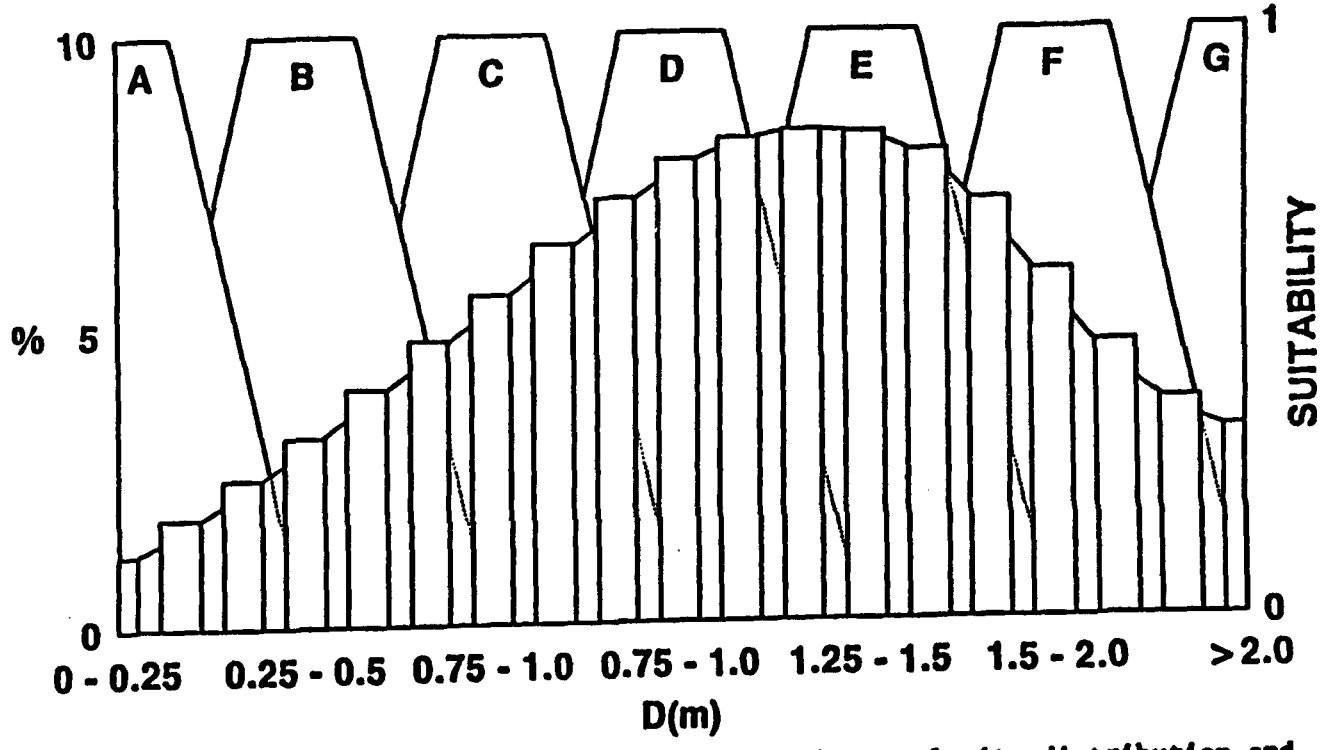

Figure 1. Conceptual relationship between a depth or velocity distribution and habitat requirements of a hypothetical group of species represented by an ordinated set of habitat suitability curves. The left abscissa represents the percent distribution of each depth or velocity increment. The right abscissa represents the habitat value from 0.0 to 1.0 for each depth or velocity. The relative value of the habitat for each species can be determined by how much of the frequency distribution falls within its suitability curve, or restated, the composition of this hypothetical group of species is at least partially determined by the distribution of depth and velocity

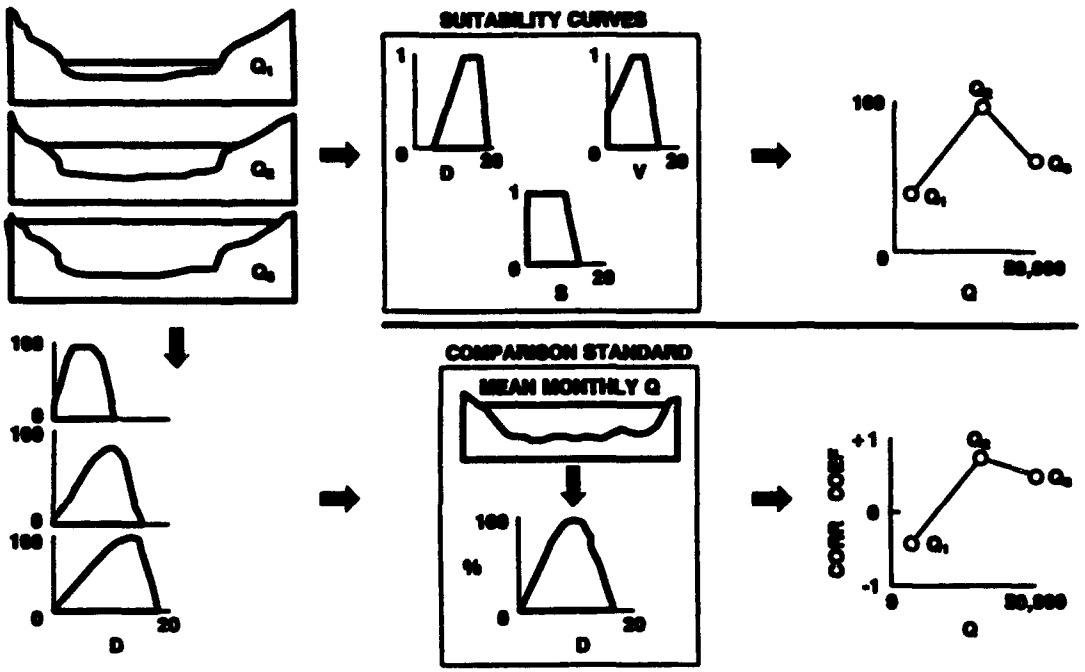

Figure 2. Comparison of a single population or guild analysis with the RCHARC approach. Both approaches begin with channel cross-section information (cross section at three discharges, Q1, Q2, and Q3) with cell-specific depth and velocity information available in each cell at the different discharges. In the usual habitat-based approach, the cell-by-cell depths and velocities at each discharge are separately evaluated against suitability curve information. The habitat value of a particular cross section at a particular discharge is obtained by summing the habitat values of its component cells to generate the plot in the upper right. The plot relates the habitat value of the transect at each discharge to the habitat requirements of the biological target. However, expanding this approach to a community or ecosystem level can be difficult and cumbersome. In the RCHARC approach, the cell-by-cell depth and velocity information for each discharge is summarized with a frequency distribution. The three resulting frequency distributions are then compared to the frequency distribution of the habitat standard to determine how the alternatives rank to the standard (plot in lower right)

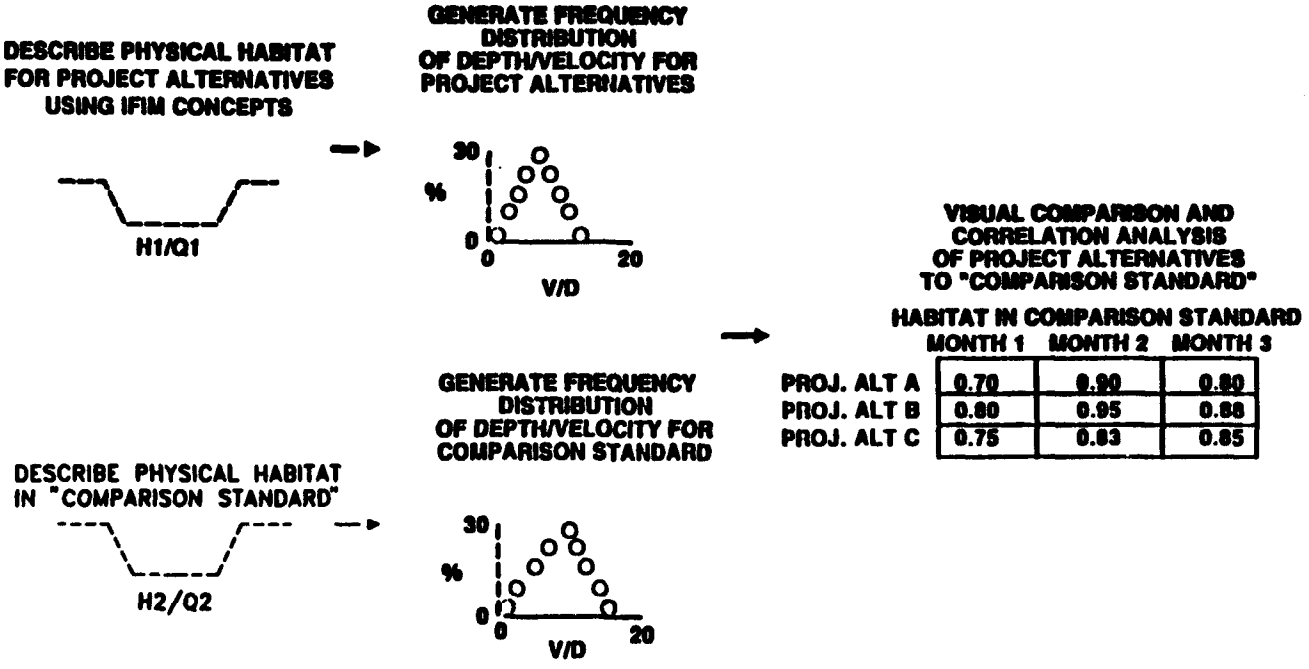

Figure 3. Simplified overview of steps involved in applying the RCHARC. First, the CSRS channel is described and simple hydraulic characteristics are determined for appropriate stage-discharge pairs (single pair, H1/Q1, is used in this example, but most examples would have more pairs). The H1/Q1 pair in conjunction with other information is used to determine the distribution of depth or velocity in the channel. A similar process is followed to determine the depth or velocity distribution in the project alternative. The resulting distributions are compared using correlation analysis or a similarity statistic to determine how a project channel compares to a standard channel. This process would be repeated nine times to generate the table of correlation coefficients shown

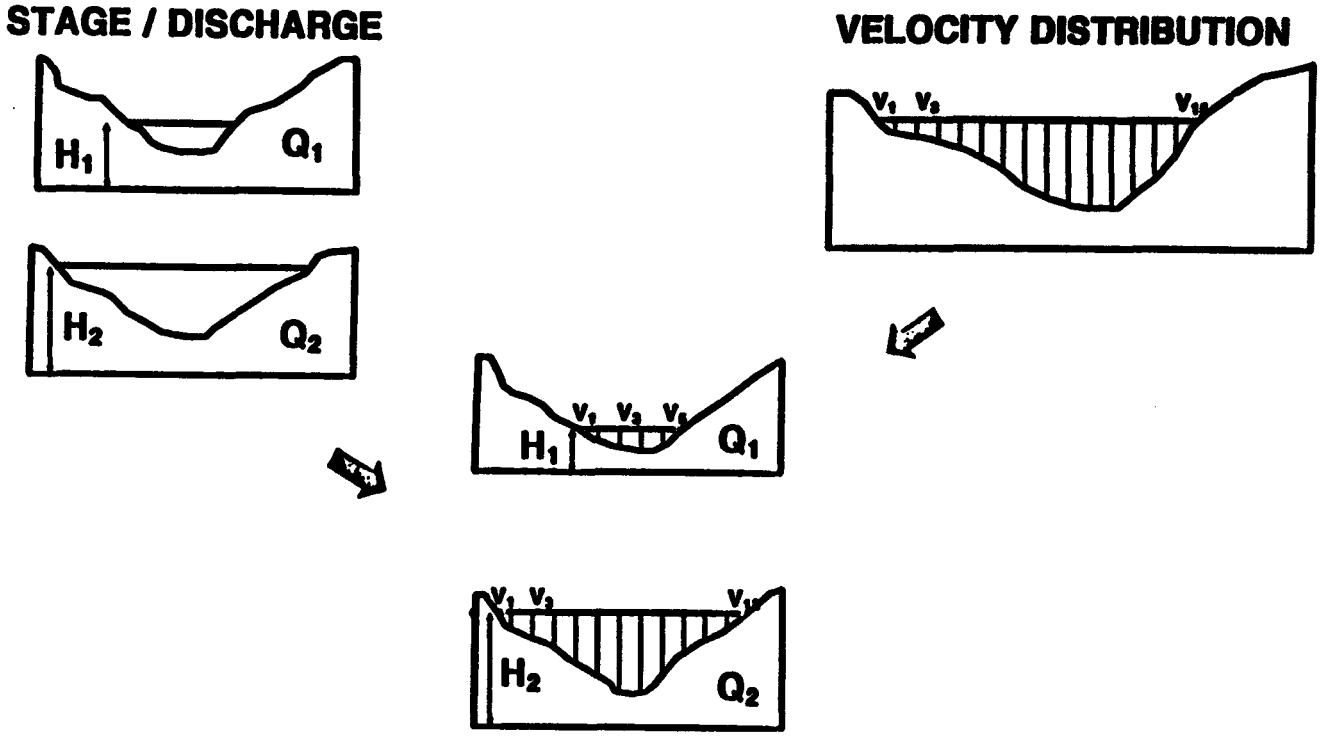

Figure 4. Representation of approach used to develop descriptions of channel flow conditions. First, a stage-discharge relationship had to be developed for each transect. Depending upon tailwater and availability of stage-discharge data, relationships were predicted by HEC-II or UNET hydraulic models, obtained from existing gauges or staff gauges deployed for this study, or field measured. Lateral flow patterns were either synthesized using hydraulic radius or based on two velocity calibration data sets. The two separate sources of flow information were combined in the IFG-4 program of the PHABSIM system to develop a complete description of channel flow conditions at each cross section

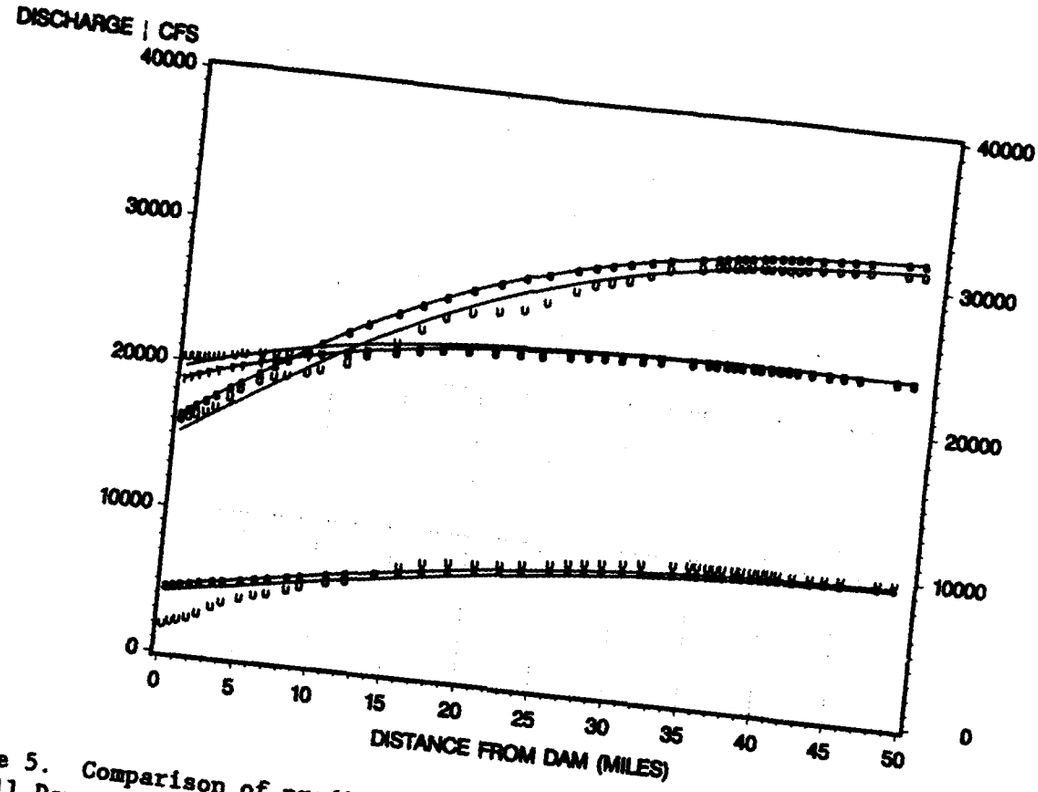

Figure 5. Comparison of predicted discharges for three scenarios for Fort Randall Dam. For each scenario (U) is the predicted discharge pattern obtained from the UNET model and represents the best available prediction of discharge. The straight line with no symbols represents the discharge pattern predicted by fitting the logistic equation to the UNET predictions. Discharge predictions were also obtained by estimating the value of the R coefficient from regression equations (S, synthesized). A separate analysis was performed to test the predictive power of the regression relationships used to estimate the R coefficient. The R coefficient obtained from regression was used in the logistic equation to predict a downstream discharge pattern (T, test case) from a UNET run that was not used to develop the regression relationships. The close fit for all scenarios, including the test case, suggests that little pattern information was lost by recreating the downstream discharge pattern using linear regression of logistic equation coefficients

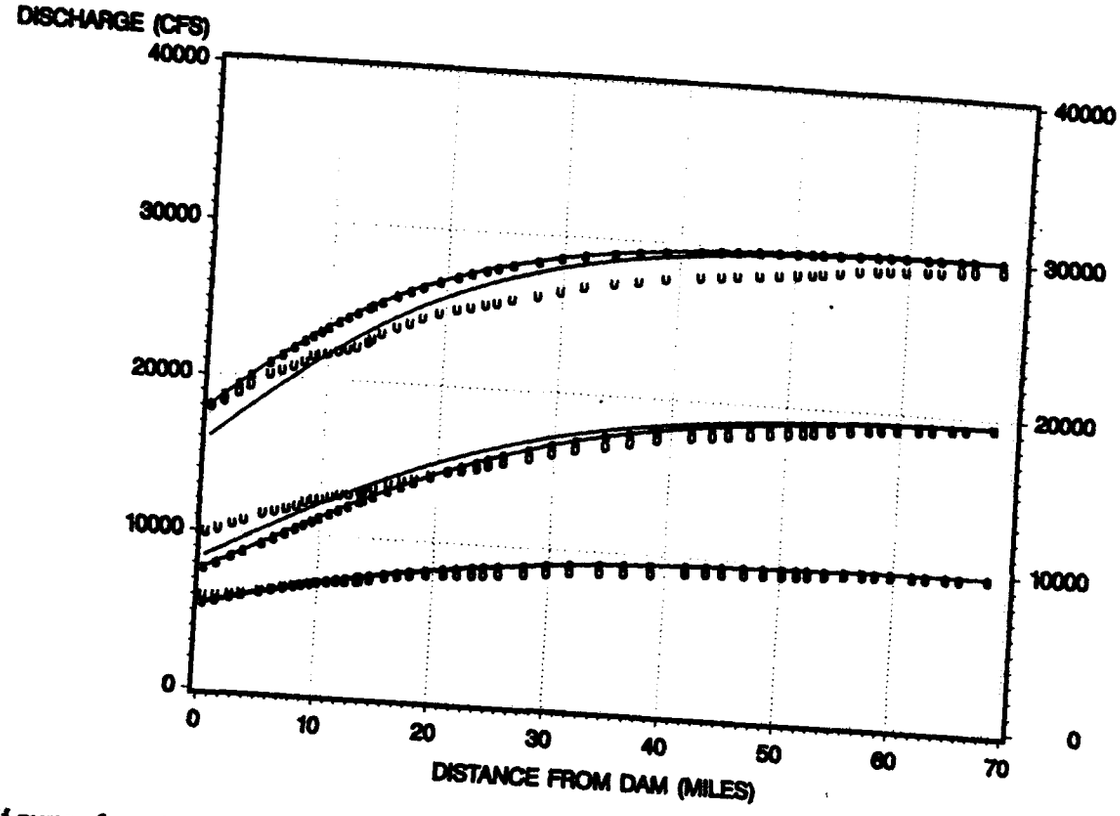

Figure 6. Comparison of predicted discharges for three scenarios for Garrison Dam. All symbols used are similar to those in Figure 5 except that an independent verification of the regression approach was not employed because only nine scenarios were available for evaluation. However, the similar statistics of the Fort Randall and Garrison analyses indicate that similar confidence can be placed in the Garrison analysis

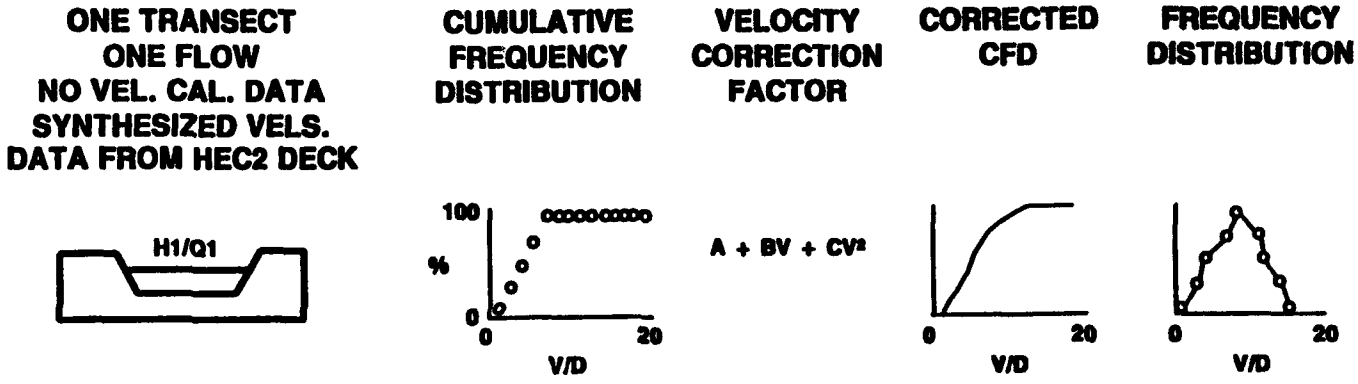

Figure 7. Depiction of method used to correct the CSRS velocity distributions. The cumulative frequency distribution, represented by the logistic equation, is corrected using a quadratic equation derived from analysis of project data with and without velocity calibration data. A frequency distribution is then obtained from the corrected cumulative frequency distribution

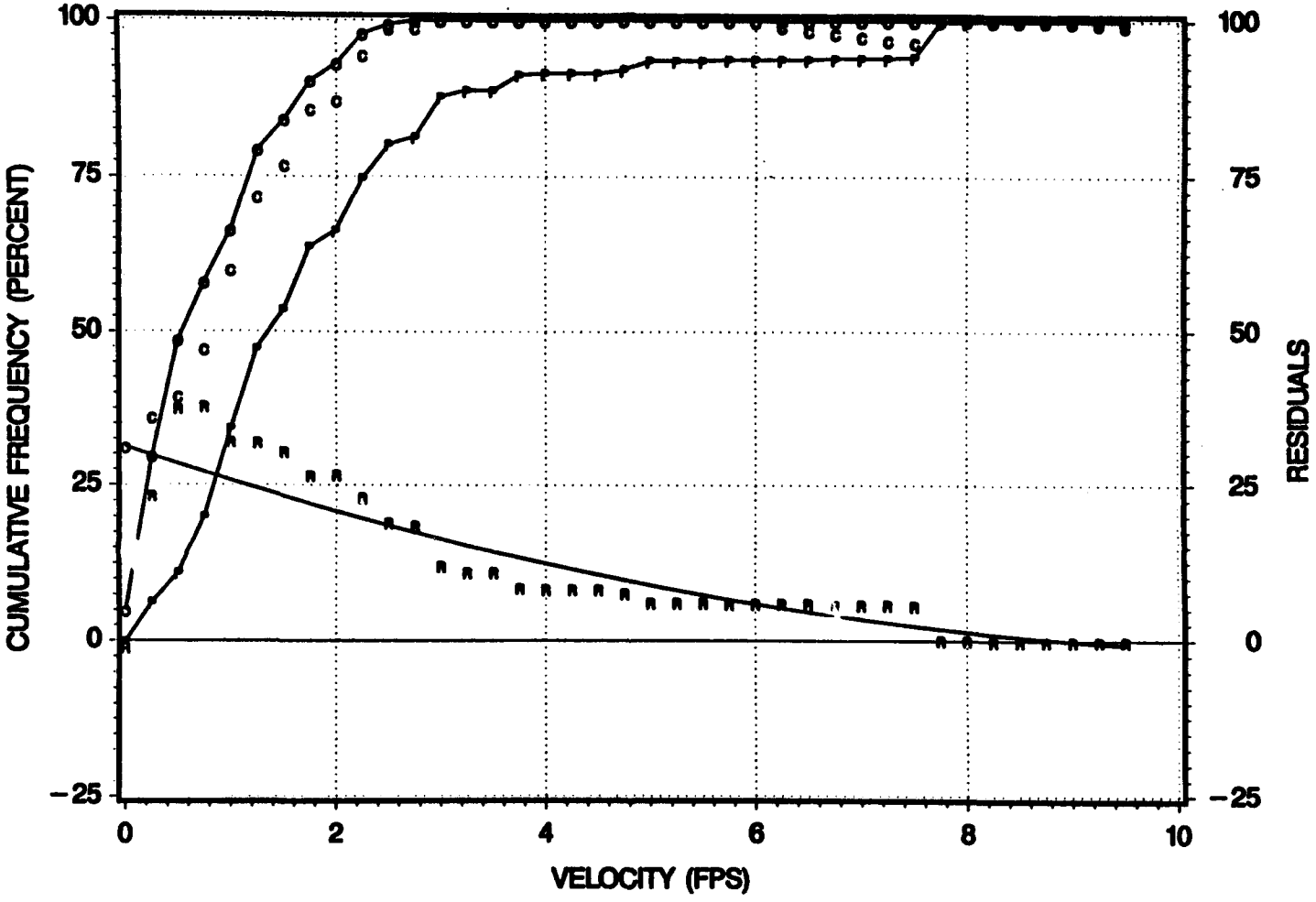

Figure 8. Comparison of the velocity distributions made at a 6,000-cfs discharge: with calibration velocities (O), without calibration velocities and velocities predicted from hydraulic radius (P), and with the velocity corrections (C). The corrections were obtained by nonlinear regression of the differences (R) between the with- and without-velocity calibration data sets. The line without symbols represents the quadratic equation that was fit to the differences and then added back to the cumulative frequency obtained without using the velocity calibration data sets

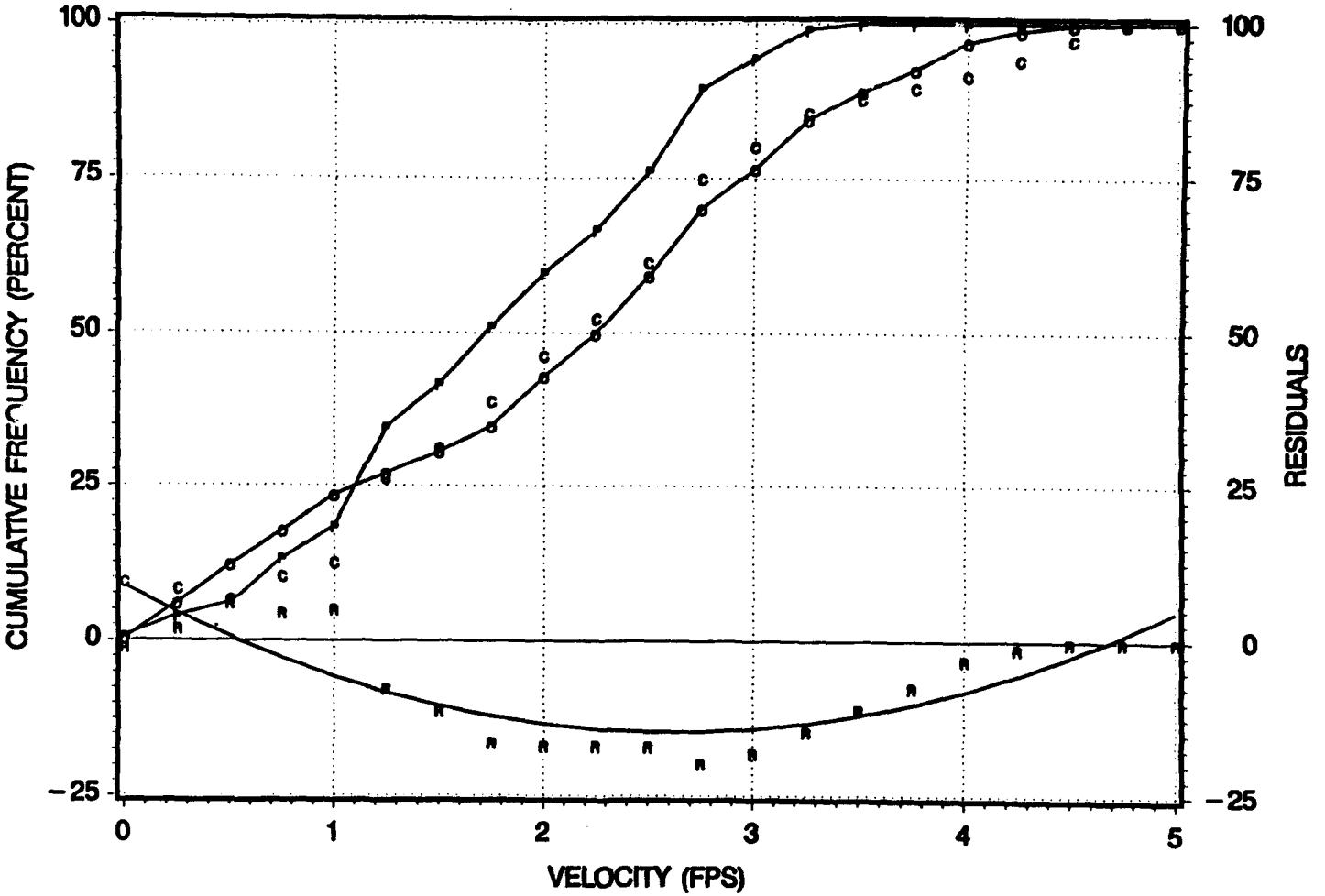

Figure 9. Comparison of velocity distributions made at a 50,000-cfs discharge (symbols as defined for Figure 8)

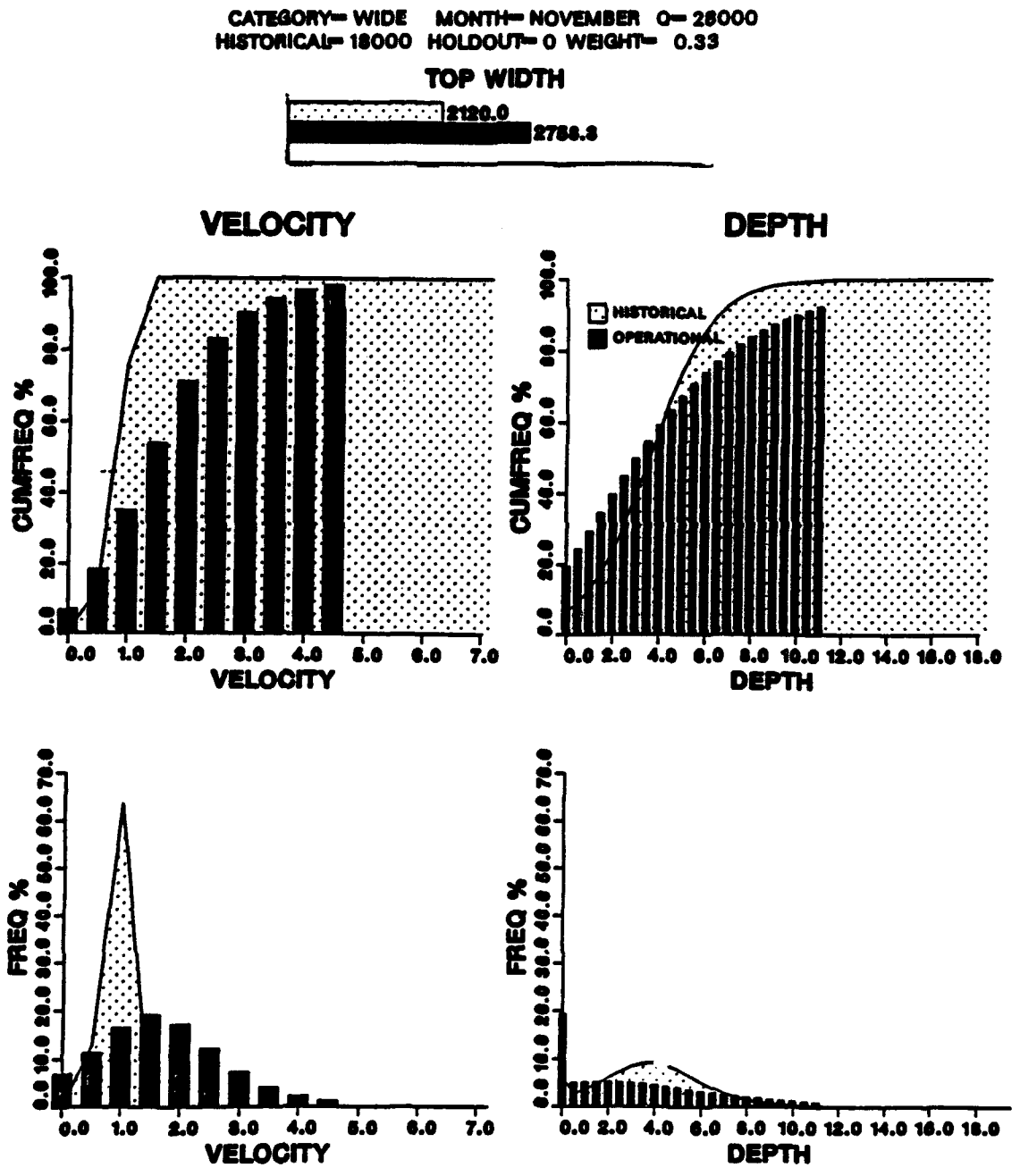

Figure 10. Comparison of the depth and velocity frequencies between the CSRS at a discharge of 18,000 cfs (historical) and project channel conditions at a discharge of 28,000 cfs (operational) for the wide channel category. Note the greater depths and lower velocities in the historical channel than in the project channel. The velocity distributions and depth distributions do not necessarily have to mass balance if the topwidths are substantially different

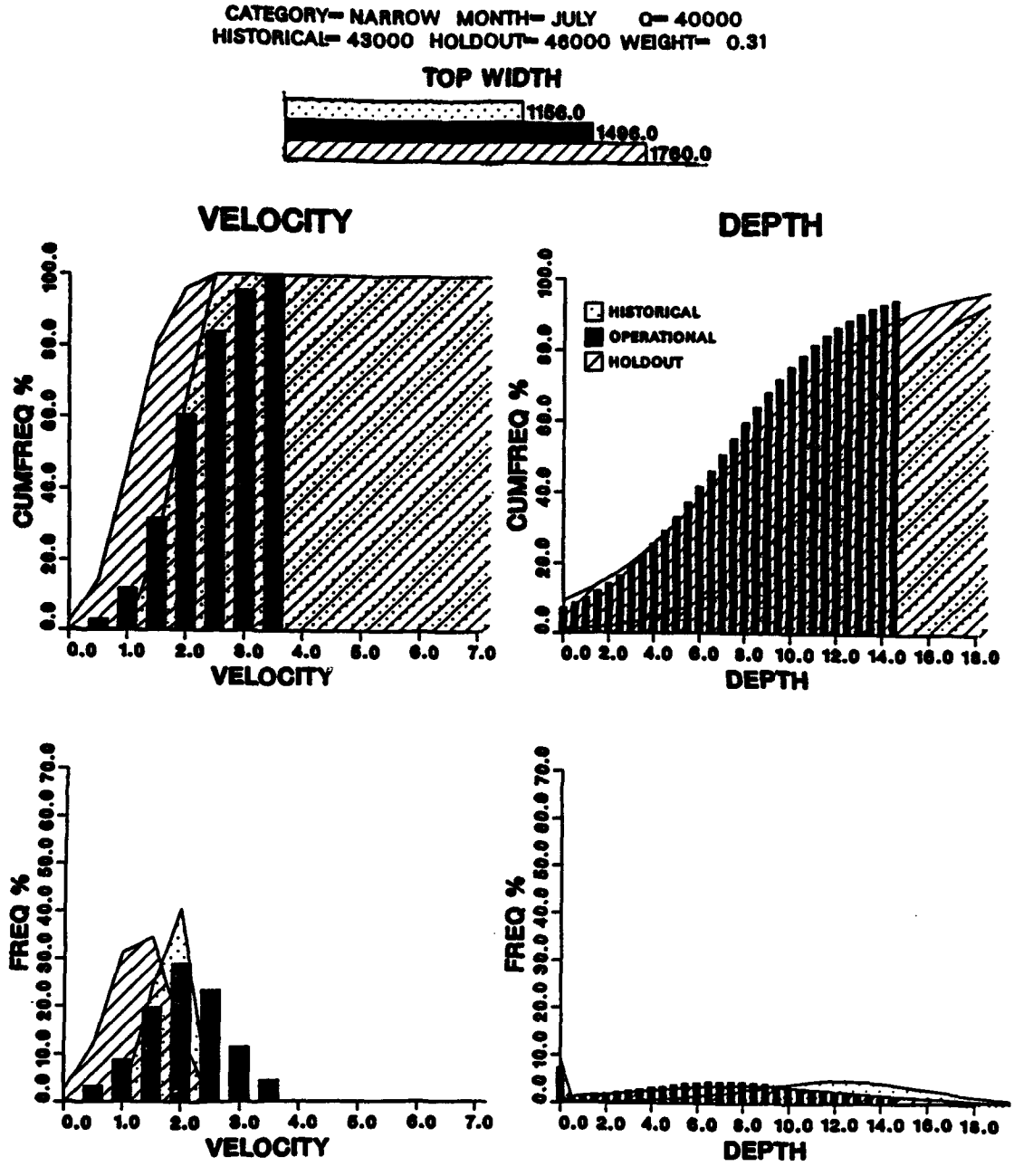

Figure 11. Comparison of the depth and velocity frequencies between the CSRS at a discharge of 43,000 cfs, project channel at a discharge of 40,000 cfs, and special holdout run to simulate a year as though the dams were not in place

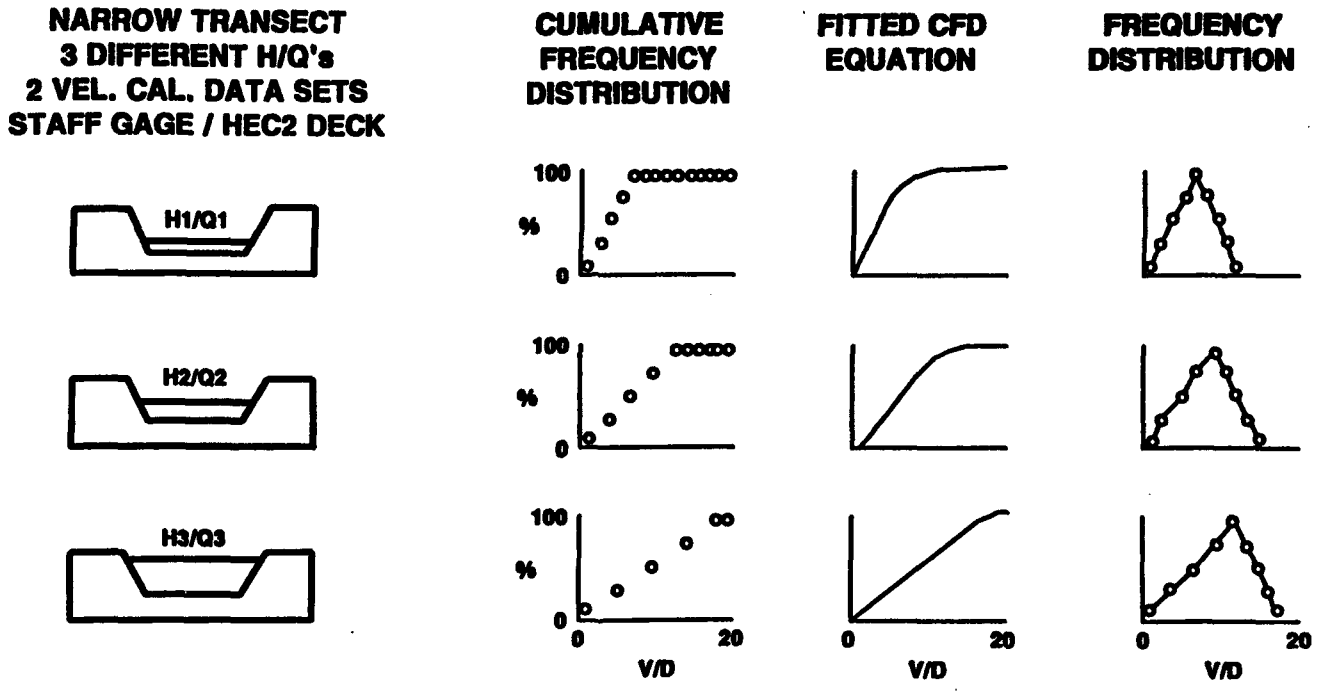

Figure 12. Cumulative frequency distribution is developed from the depth and velocity information from one cross section for each of three discharges. The cumulative frequency is fitted to the logistic equation and a smoothed velocity and depth distribution is developed from each fitted cumulative frequency distribution. In this case, the analysis is performed for only 1 month

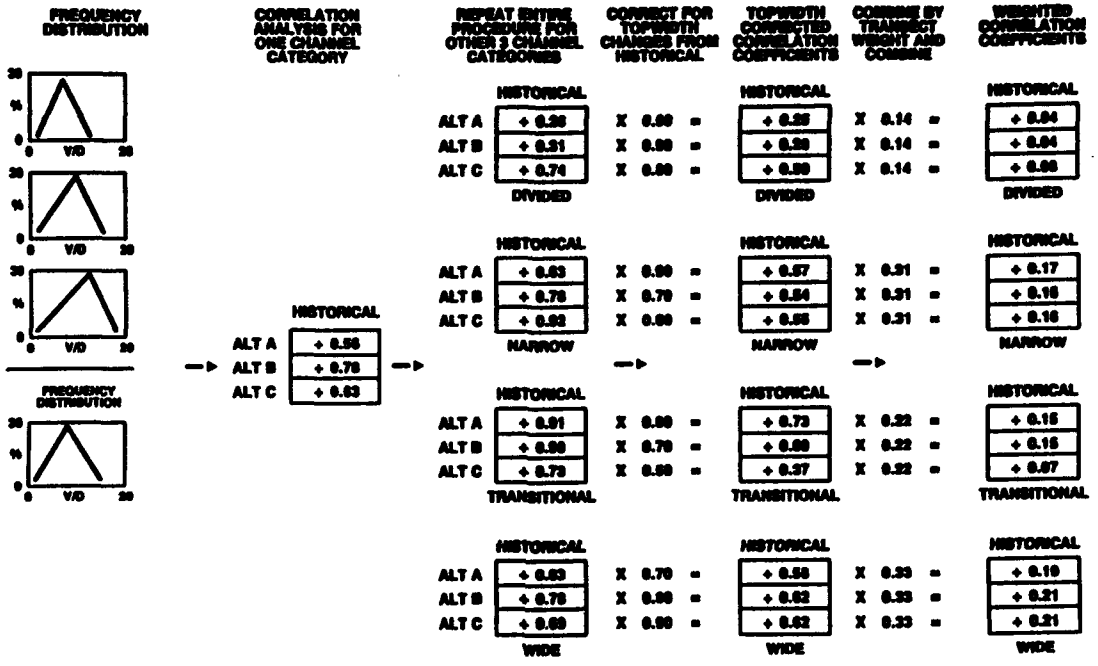

Figure 13. CSRS frequency distribution derived in Figure 7 is below the horizontal reference line on the left side of this plot. The frequency distributions from Figure 12 for each alternative are located above the horizontal reference line. Correlation analysis is used to relate the similarity of each of the project alternatives to the CSRS. The 1-by-3 correlation table shown in column 2 represents only one channel category. The Gavins Point analysis used four categories of transects (represented by column 3). Similar representation was used for Fort Randall, Garrison, and Fort Peck tailwaters except that the categories were selected based on distance from the dam instead of topwidth. Each of the correlation coefficients is adjusted for differences in topwidth (as a percentage) between the CSRS and each project alternative to derive a series of topwidth-corrected correlation coefficients (column 5). Each of the topwidth-corrected correlation coefficients is then weighted by the linear percentage of the channel that each represents. Critical reaches can be weighted more heavily if necessary

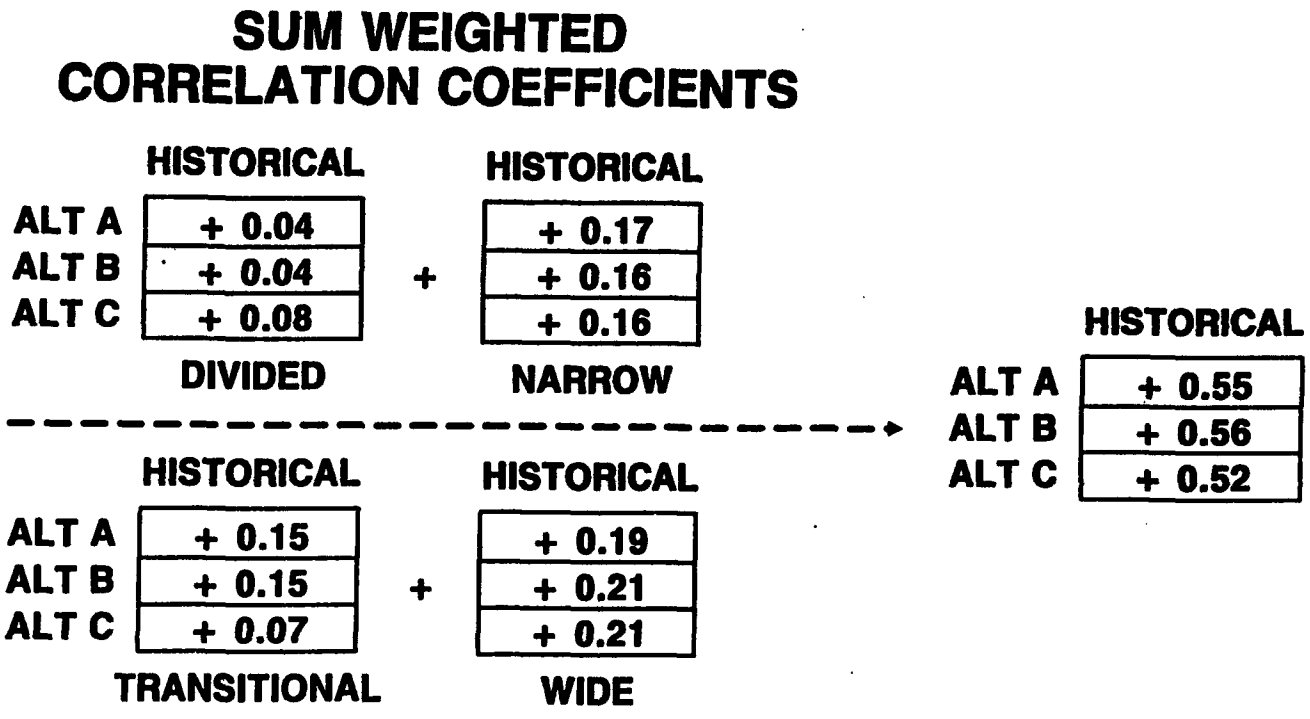

Figure 14. Each of the weighted correlation coefficients from the rightmost column of Figure 13 is summed to represent a single value of impact for each of the three alternatives. For this example, covering Figures 7, 12, 13, and this figure, the example was performed for only 1 month. For multiple months (or other time steps), the correlation coefficients would be summed across rows to develop a single value of impact

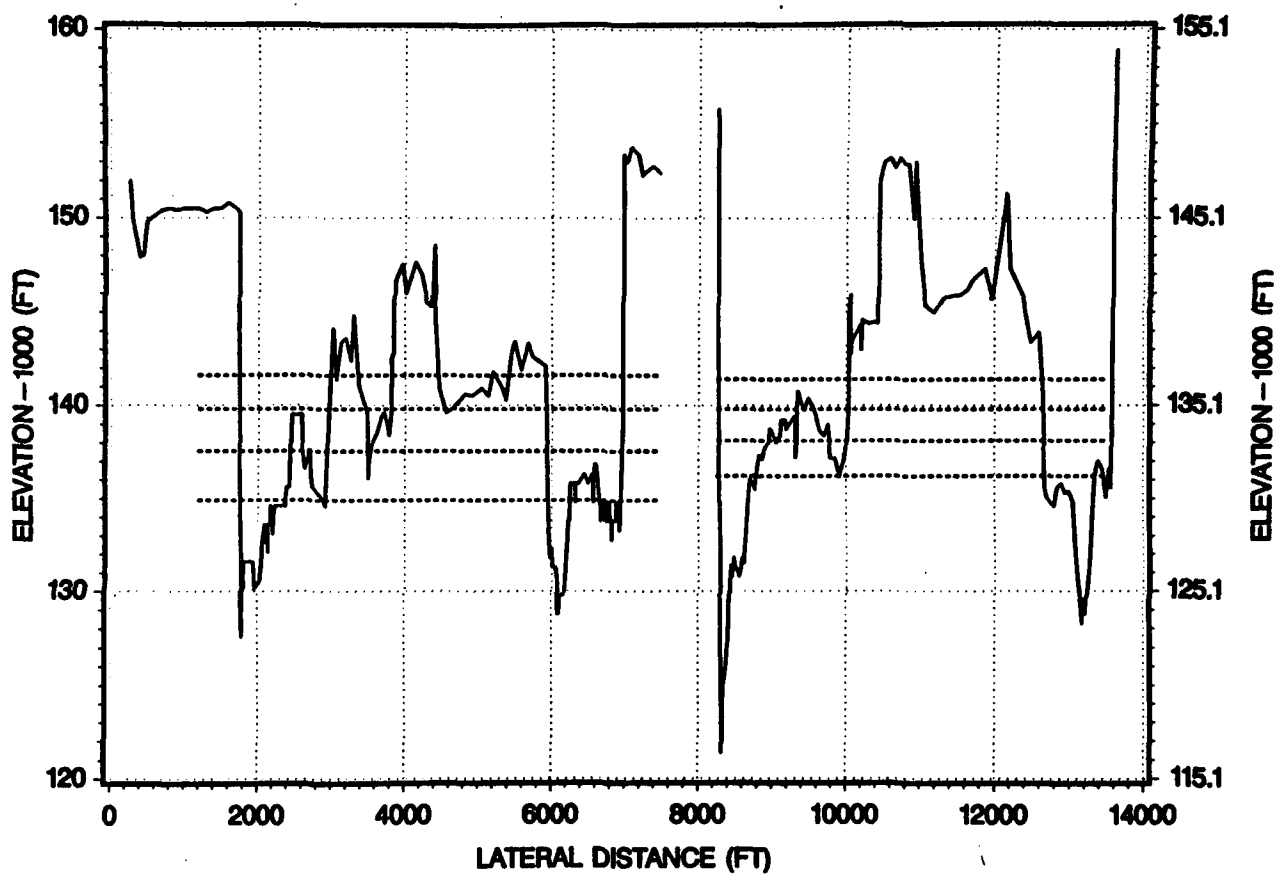

Figure 15. Comparison of a cross section in the divided category collected prior to impoundment (left) with project cross section (right) collected at the same location (Gavins Point, RM 783.6) but after many years of regulation. The left abscissa applies to the preproject transect and the right abscissa applies to the project channel. The elevations have been reduced by 1,000 ft. The two elevation scales have been adjusted so that both are aligned to the water surface elevation at 30,000 cfs to enhance comparability of the stage patterns. Note that project elevations have been reduced by about 5 ft because of degradation. Note also the compression of the stage-discharge relationship in the project channel. (Horizontal WSEL reference lines at 6,000, 16,000, 32,000, 50,000 cfs)

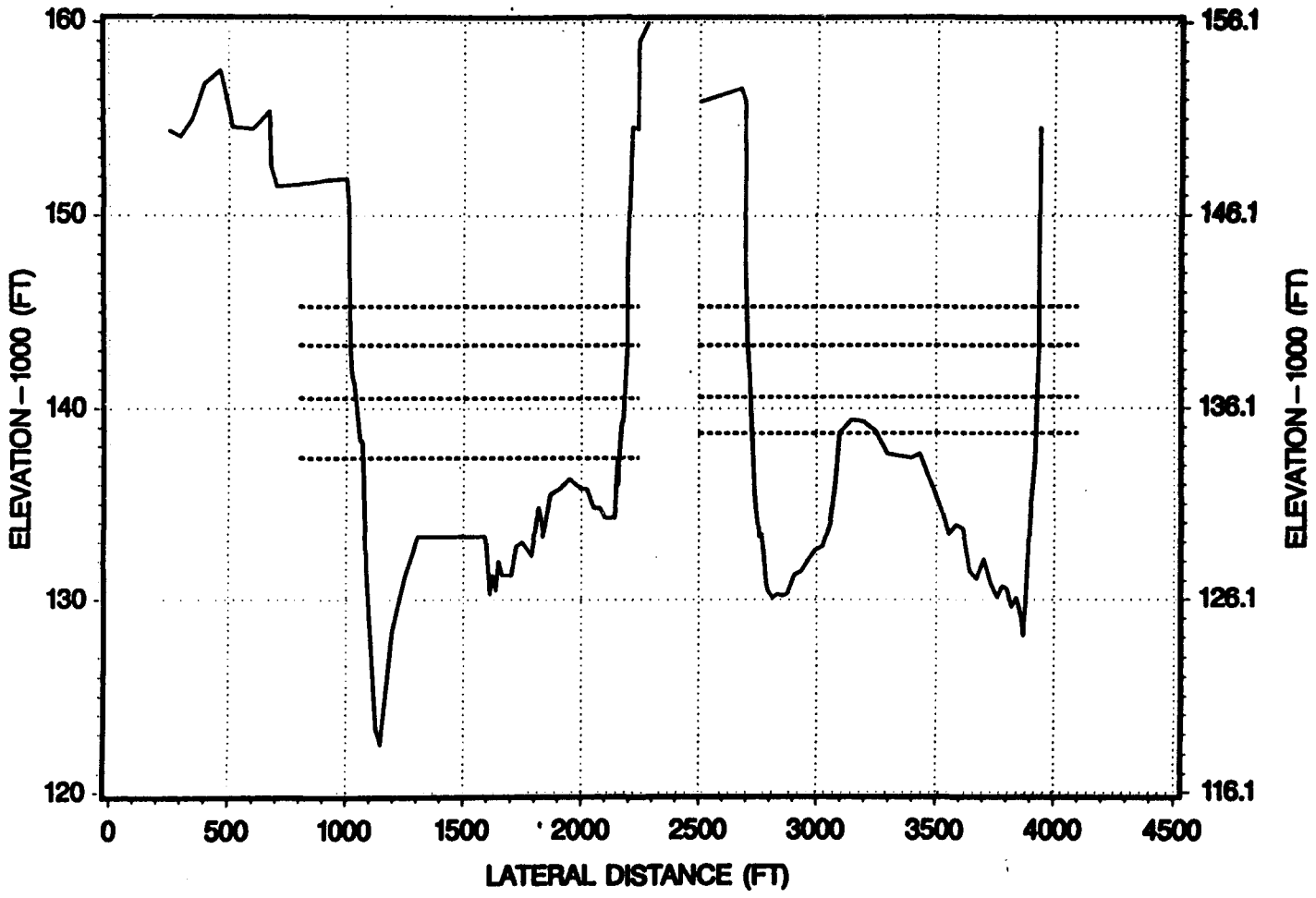

Figure 16. Comparison of a cross section (RM 786.7) in the narrow category collected prior to impoundment (left) with that after many years of regulation (right). Configuration of this plot is the same as in Figure 15. Note that the project elevations have been reduced by about 5 ft by degradation but that the stage-discharge relationship has not been significantly compressed

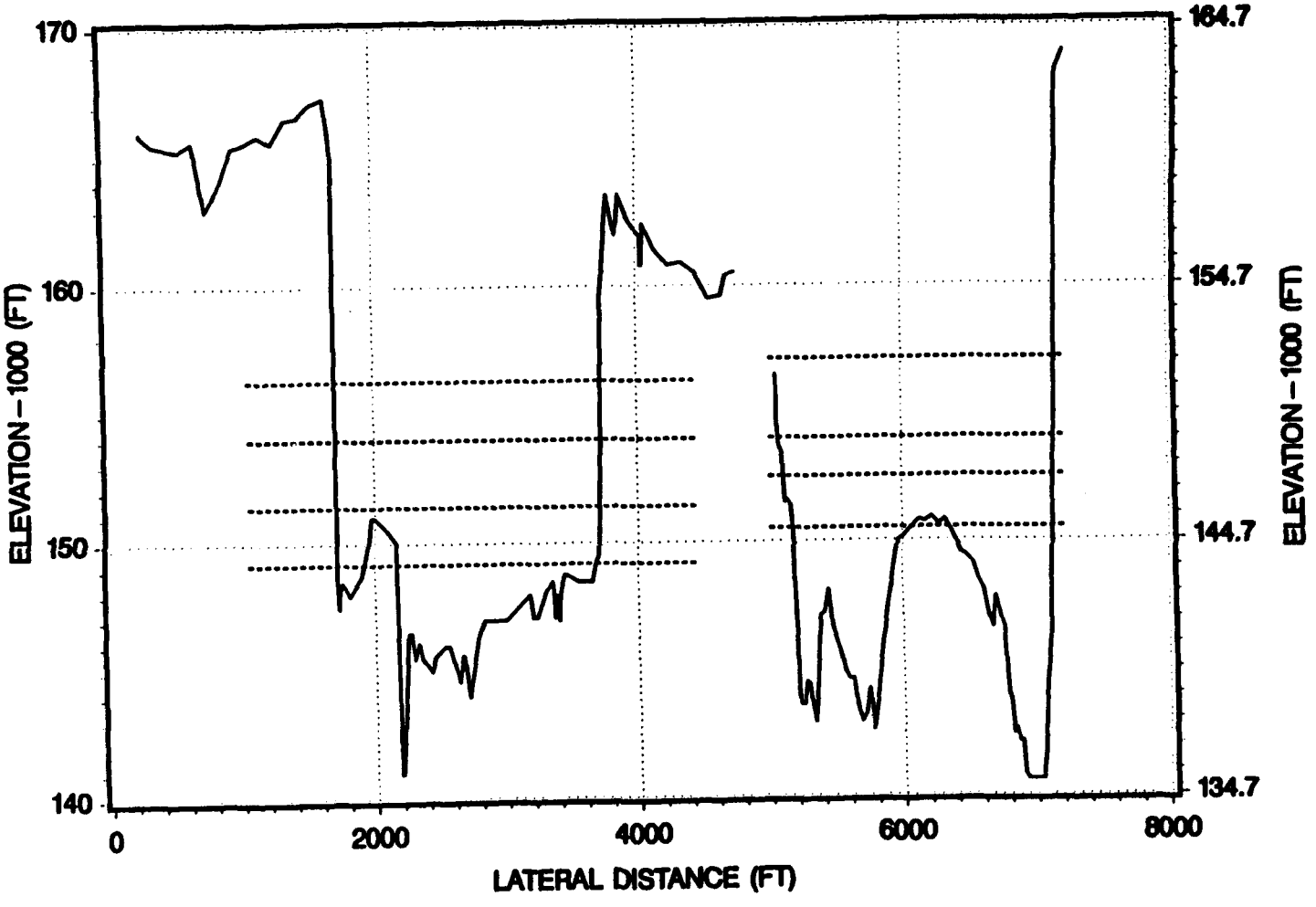

Figure 17. Comparison of a cross section (RM 797.5) in the transitional category collected prior to impoundment (left) with that after many years of regulation (right). Configuration of this plot is the same as in Figure 15. Note that the project elevations have been reduced by about 5 ft by degradation but that the stage-discharge relationship has not been significantly compressed

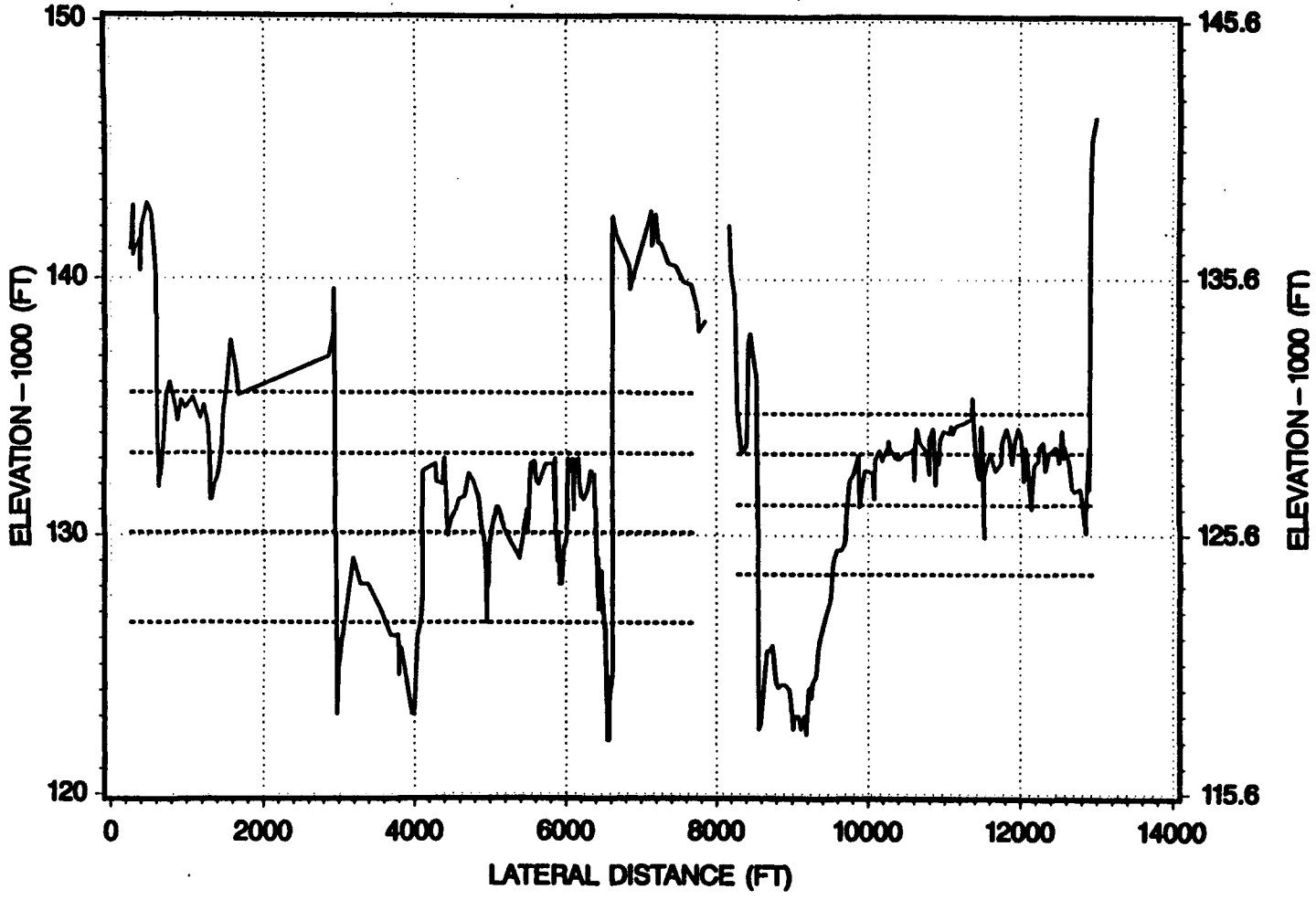

Figure 18. Comparison of a cross section (RM 778.9) in the wide category collected prior to impoundment (left) with that after many years of regulation (right). Configuration of this plot is the same as in Figure 15. Note that the project elevations have been reduced by about 5 ft by degradation and that the stage-discharge relationship has been significantly compressed

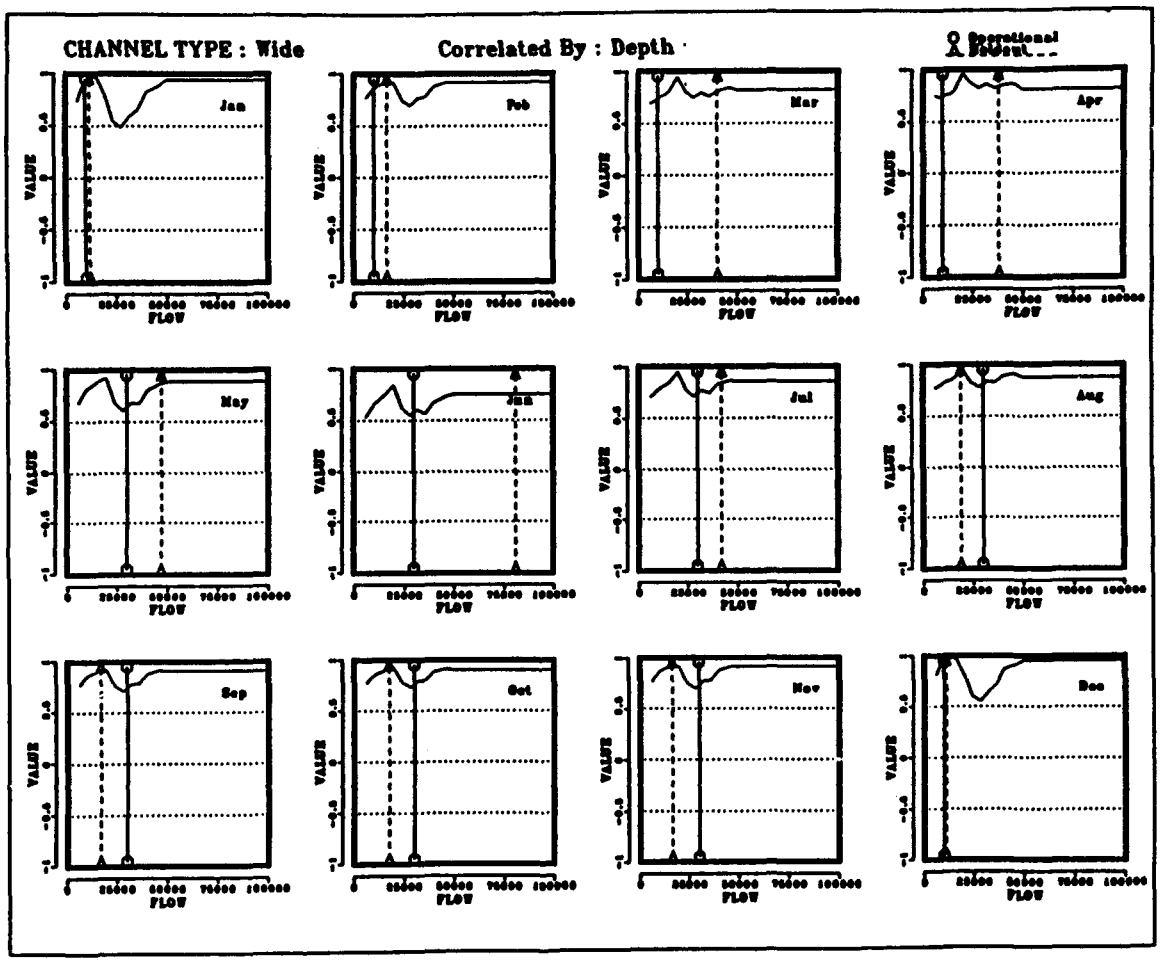

Figure 19. Monthly value functions (constructed from correlation coefficients) for the wide channel category for depth. These functions have not been corrected for topwidth. The dotted reference line is the median monthly flow for that month, and the solid vertical reference line represents the project alternative depicted in Figure 23. Note the general pattern of bimodal peaks for each month

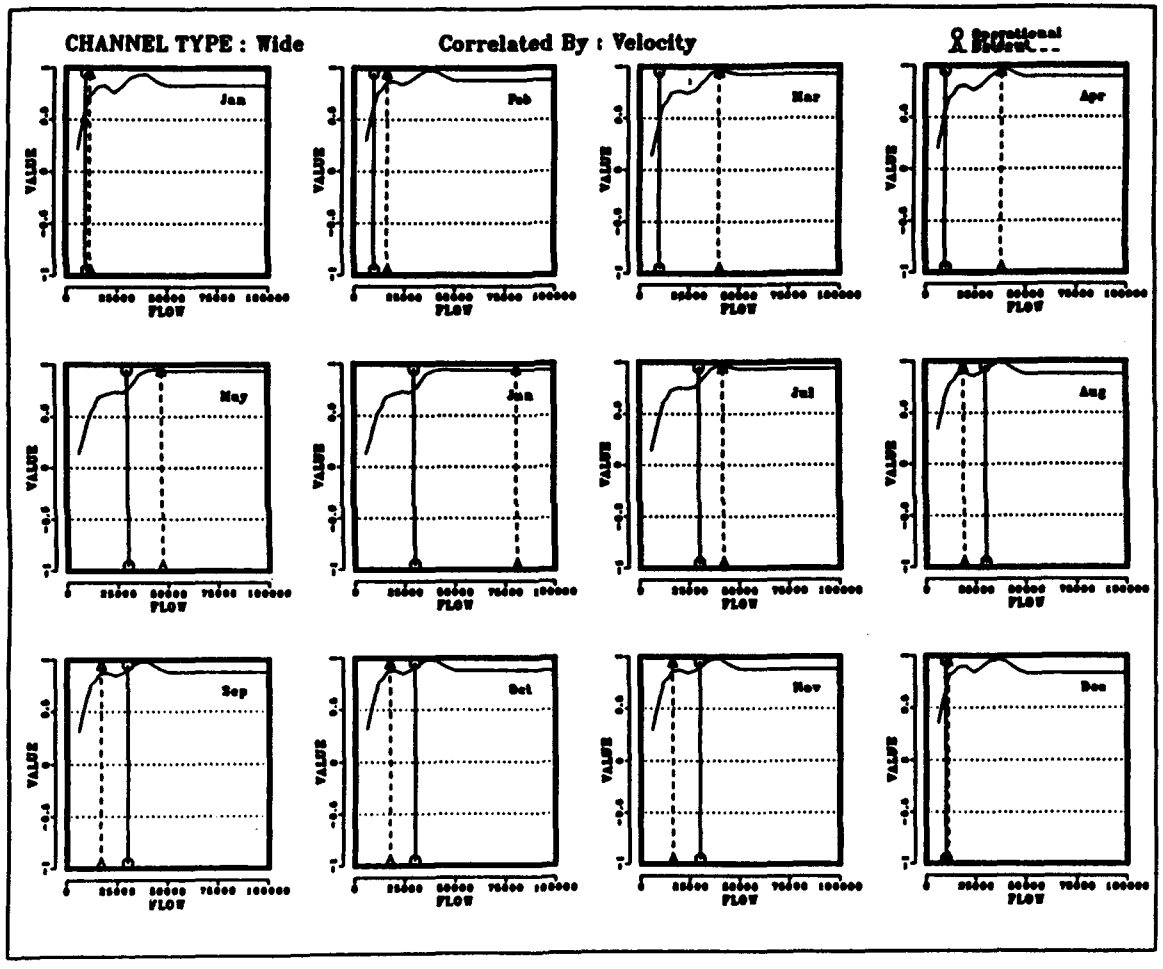

Figure 20. Monthly value functions (constructed from correlation coefficients) for the wide channel category for velocity. These functions have not been corrected for topwidth. The conventions of Figure 19 are followed in this figure. Note the general pattern of bimodal peaks for each month

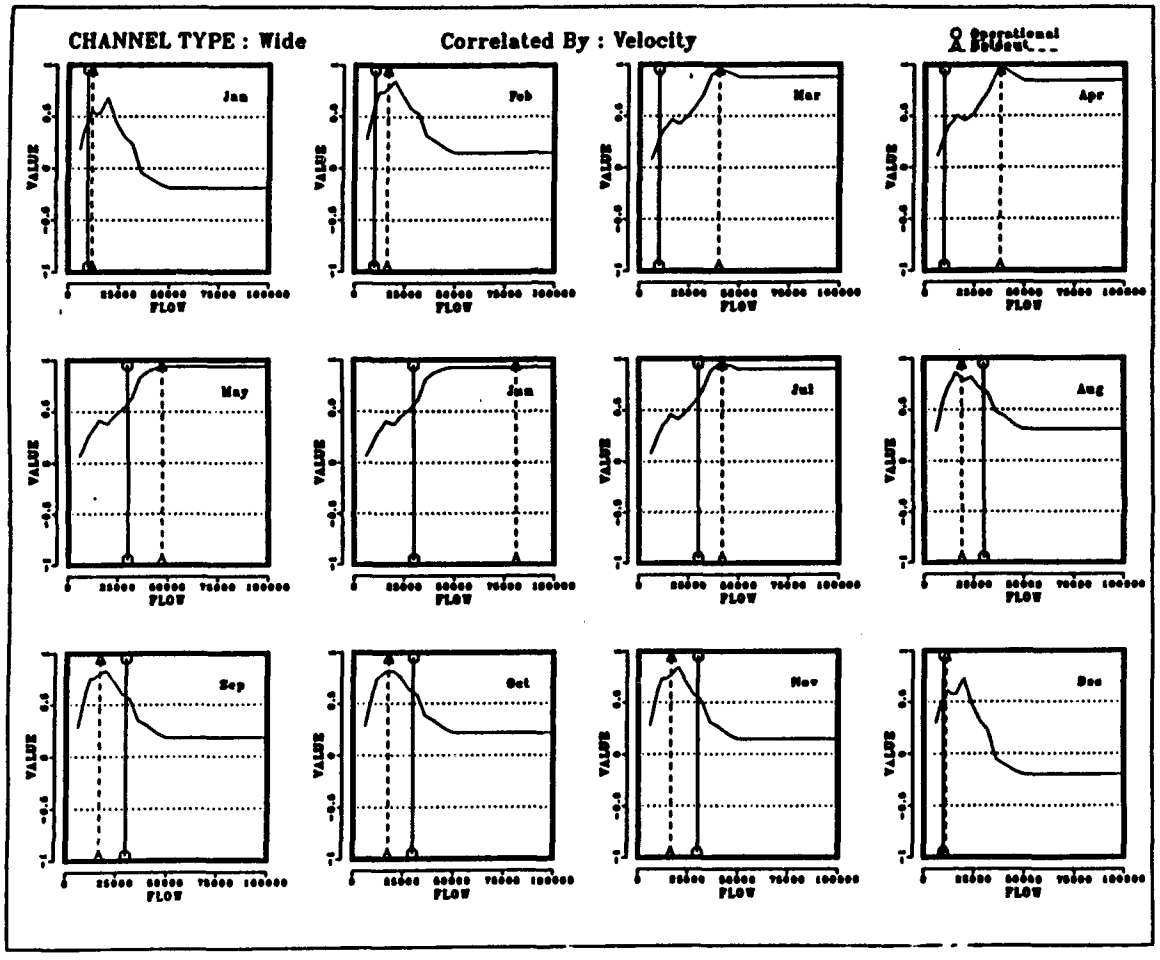

Figure 21. Monthly value functions (constructed from correlation coefficients) for the wide channel category for velocity. These functions have been corrected for topwidth. The conventions of Figure 19 are followed in this figure. Note that the bimodal peaks can be observed even through the topwidth corrections

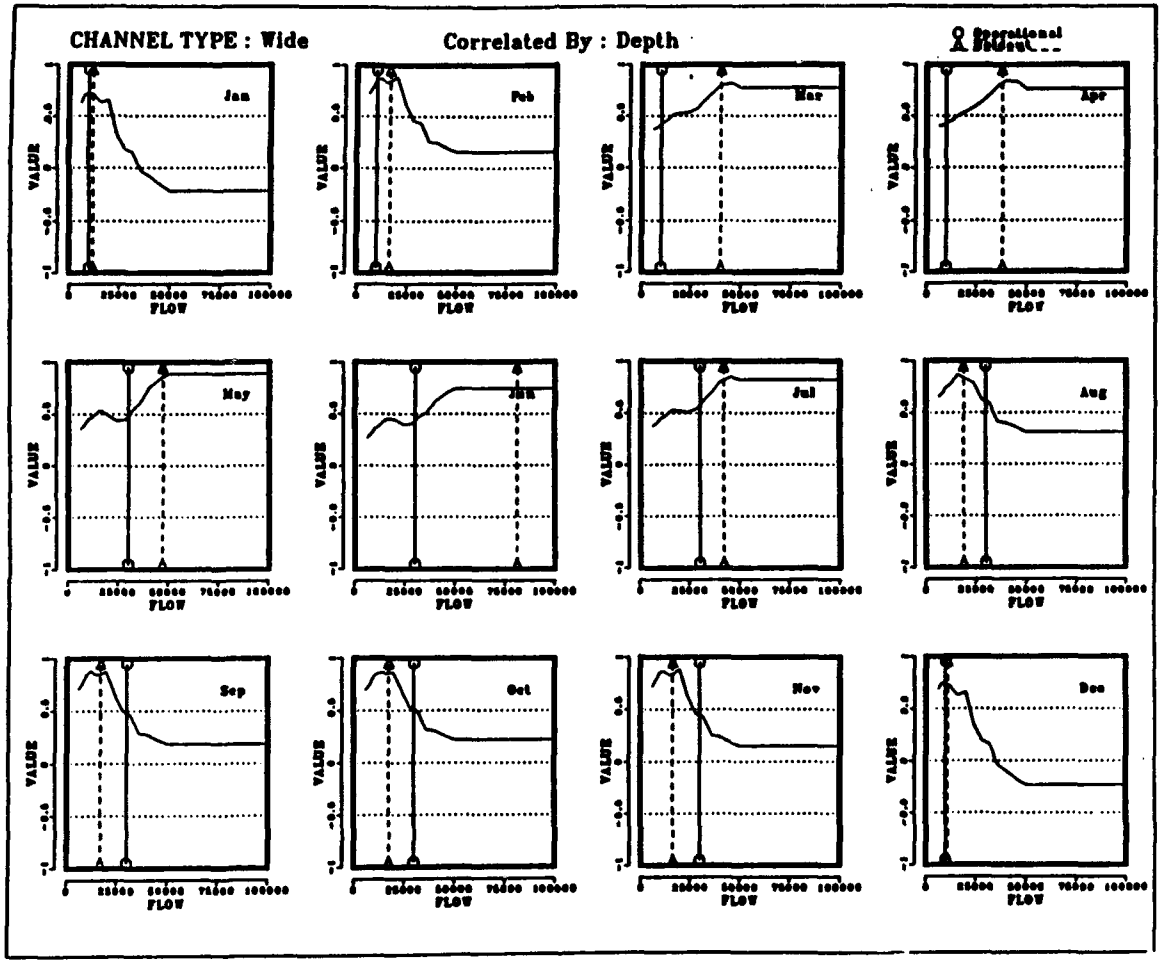

Figure 22. Monthly value functions (constructed from correlation coefficients) for the wide channel category for depth. These functions have been corrected for topwidth. The conventions of Figure 19 are followed in this figure. Note that the bimodal peaks can be observed even through the topwidth corrections

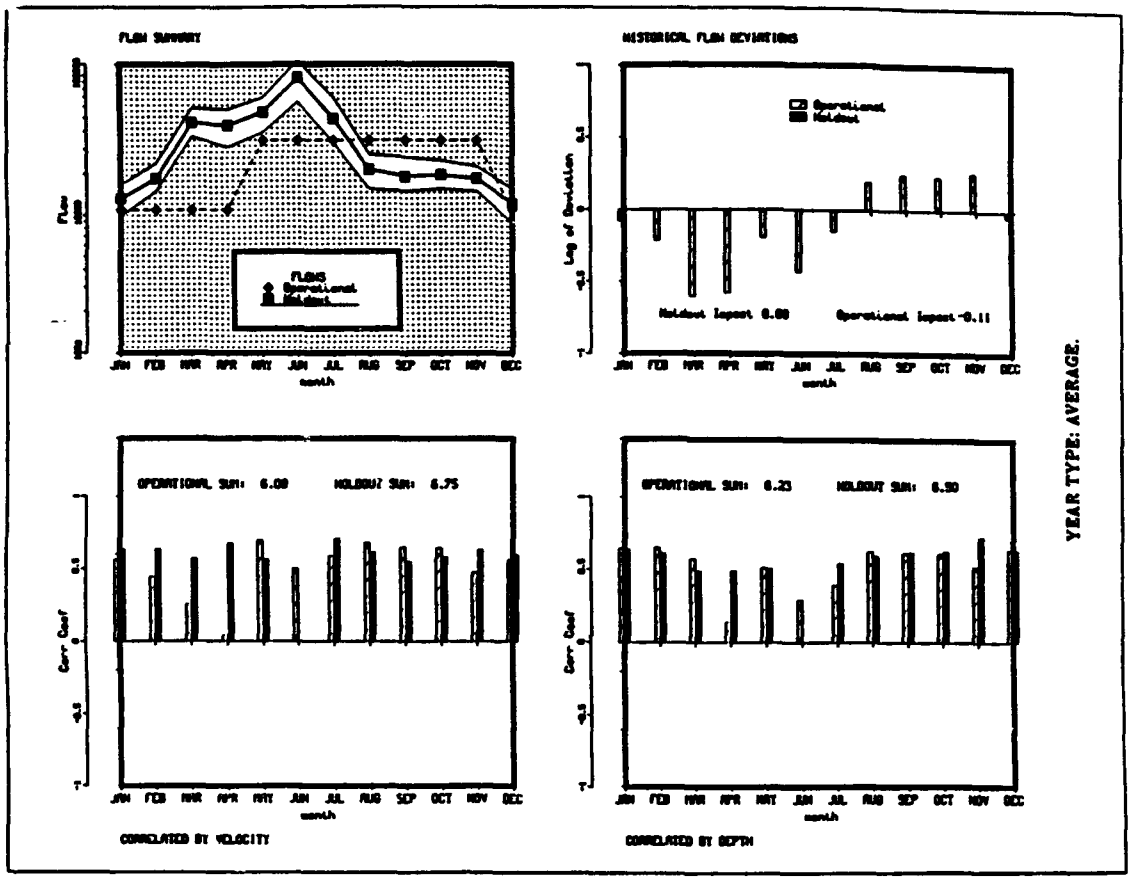

Figure 23. Summary results for an application of the RCHARC to the Gavins Point tailwater. The upper left plot provides an estimate of the median, 25-percent exceedance flow, and 75-percent exceedance flow for the CSRS. An arbitrary annual flow sequence of monthly flows represents the project flows. The flows are presented on a log scale because the natural logarithm of discharge is linearly related to depth. The log scale gives an approximation of how depth could change as flows change. The upper right plot (the deviation plot) describes the degree to which the flows differ from the median. The lower two plots represent an annual time series of monthly correlation coefficients associated with the holdout (in this case, the median flow) and the operational flow. The sum of the holdout correlation coefficients represents the effects of the median CSRS hydrograph; the sum of the operational correlation coefficients represents the impacts of the project flow

APPENDIX A: TOPWIDTHS AND CORRELATION COEFFICIENTS OF GAVINS POINT TAILWATER

Tables of coefficients are presented in two major groups. The first group contains the correlation coefficients for depth and the second contains the correlations for velocity. Within each group, the tables occur in three major subsets--one subset for each of the types of water year (median flow, high flow, and low flow). Within each subset, the coefficients are separated by channel category and then by topwidth adjustment. Within each pair of tables, the first table contains coefficients not adjusted for topwidth and the second member of the pair contains coefficients adjusted for topwidth.

GAVINS CHANNEL TOPWIDTHS F' DISCHARGE AND CHANNEL CATEGORY

OBS	Q	DIVIDED	NARROW	TRANSITIONAL	WIDE
1	6000	1237	1185	909	1939
2	8000	1237	1185	981	1974
3	10000	1391	1185	1055	2082
4	12000	1678	1204	1148	2107
5	14000	1678	1204	1192	2207
6	16000	1768	1204	1377	2275
7	20000	2056	1228	1425	2001
8	24000	2198	1322	1457	2397
9	28000	2294	1385	1513	2758
10	32000	2528	1428	1578	2956
11	36000	2638	1441	1672	3455
12	40000	2756	1496	1822	3549
13	46000	2756	1760	1935	3704
14	50000	2756	1760	2007	3776
15	50000	2756	1760	2007	3776

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR DIVIDED CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K06DDEPC	0.91321	0.69445	0.52803	0.54171	0.55244	0.53613	0.53858	0.60187	0.67728	0.65937	0.69445	0.92999
2	K08DDEPC	0.91630	0.83009	0.31949	0.39372	0.35299	0.36290	0.33151	0.77157	0.81996	0.80899	0.83009	0.89748
3	K10DDEPC	0.96052	0.86746	0.42994	0.49642	0.46197	0.46792	0.44165	0.80517	0.85662	0.84494	0.86746	0.94733
4	K12DDEPC	0.98740	0.89383	0.53297	0.59253	0.56311	0.56611	0.54413	0.83047	0.88279	0.87090	0.89383	0.97926
5	K14DDEPC	0.99381	0.90805	0.57294	0.63199	0.60225	0.60521	0.58378	0.84672	0.89741	0.88594	0.90805	0.98654
6	K16DDEPC	0.98544	0.92999	0.52556	0.59766	0.55665	0.56556	0.53663	0.87719	0.92108	0.91132	0.92999	0.97070
7	K20DDEPC	0.98117	0.91853	0.74498	0.79582	0.76924	0.77209	0.75378	0.86598	0.90948	0.89970	0.91853	0.98116
8	K24DDEPC	0.95162	0.98067	0.66101	0.74855	0.68874	0.70963	0.66985	0.95595	0.97714	0.97293	0.98067	0.93279
9	K28DDEPC	0.94860	0.97278	0.69689	0.77999	0.72333	0.74307	0.70531	0.94735	0.96906	0.96469	0.97278	0.93279
10	K32DDEPC	0.95893	0.95591	0.73328	0.80487	0.75836	0.77256	0.74159	0.92230	0.95056	0.94455	0.95591	0.94930
11	K36DDEPC	0.91708	0.98563	0.64142	0.74179	0.66910	0.69774	0.64972	0.97452	0.98472	0.98319	0.98563	0.89219
12	K40DDEPC	0.86305	0.97904	0.59369	0.70969	0.62176	0.66030	0.60137	0.98455	0.98132	0.98306	0.97904	0.83005
13	K46DDEPC	0.79438	0.95436	0.54125	0.67052	0.56918	0.61729	0.54810	0.97622	0.95975	0.96470	0.95436	0.75423
14	K50DDEPC	0.74310	0.92903	0.53321	0.66697	0.55944	0.61203	0.53914	0.96110	0.93633	0.94326	0.92903	0.70067
15	KGTDDEPC	0.74310	0.92903	0.53321	0.66697	0.55944	0.61203	0.53914	0.96110	0.93633	0.94326	0.92903	0.70067

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DIVIDED CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.57518	0.42014	0.19650	0.21405	0.18500	0.17809	0.19344	0.34991	0.40645	0.39254	0.42014	0.61469
2	0.57712	0.50220	0.11889	0.15558	0.11820	0.12054	0.11907	0.44856	0.49207	0.48161	0.50220	0.59320
3	0.68029	0.59015	0.17992	0.22058	0.17396	0.17478	0.17838	0.52638	0.57808	0.56563	0.59015	0.70611
4	0.84361	0.73356	0.26905	0.31761	0.25579	0.25509	0.26511	0.65493	0.71865	0.70330	0.73356	0.87801
5	0.84909	0.74523	0.28923	0.33876	0.27357	0.27270	0.28443	0.66775	0.73056	0.71544	0.74523	0.88454
6	0.88709	0.80417	0.27954	0.33754	0.26642	0.26851	0.27548	0.72888	0.79004	0.77542	0.80417	0.91701
7	0.93521	0.91342	0.46079	0.52267	0.42814	0.42627	0.44999	0.83677	0.90716	0.89023	0.91342	0.88443
8	0.83824	0.90711	0.43709	0.52558	0.40981	0.41884	0.42750	0.92439	0.91232	0.91669	0.90711	0.77006
9	0.78921	0.85413	0.48094	0.57157	0.44919	0.45774	0.46979	0.87333	0.85964	0.86435	0.85413	0.72221
10	0.68356	0.72992	0.55768	0.64997	0.51899	0.52445	0.54435	0.74880	0.73531	0.73994	0.72992	0.61630
11	0.60236	0.69959	0.50904	0.62509	0.47783	0.49426	0.49767	0.74082	0.70919	0.71816	0.69959	0.52678
12	0.51502	0.63841	0.49224	0.62479	0.46388	0.48866	0.48124	0.69384	0.65056	0.66224	0.63841	0.43775
13	0.47404	0.62232	0.44876	0.59031	0.42465	0.45684	0.43861	0.68798	0.63627	0.64987	0.62232	0.39777
14	0.44344	0.60580	0.44209	0.58718	0.41738	0.45294	0.43144	0.67732	0.62074	0.63542	0.60580	0.36952
15	0.44344	0.60580	0.44209	0.58718	0.41738	0.45294	0.43144	0.67732	0.62074	0.63542	0.60580	0.36952

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR NARROW CHANNEL CATEGORY - MEDIAN YEAR 4

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K06NDEPC	0.91433	0.73000	-0.24400	-0.19768	-0.35710	-0.40431	-0.26917	0.56876	0.70378	0.67461	0.73000	0.92738
2	K08NDEPC	0.92683	0.83828	-0.15322	-0.09956	-0.27885	-0.33476	-0.18087	0.70691	0.81858	0.79579	0.83828	0.91432
3	K10NDEPC	0.93146	0.87813	-0.11892	-0.06121	-0.25476	-0.31581	-0.14889	0.76091	0.86130	0.84140	0.87813	0.91083
4	K12NDEPC	0.89435	0.94419	-0.00483	0.06133	-0.16301	-0.23584	-0.03988	0.87484	0.93658	0.92620	0.94419	0.85182
5	K14NDEPC	0.79985	0.95029	0.12139	0.19274	-0.05337	-0.13509	0.08245	0.93677	0.95287	0.95325	0.95029	0.73882
6	K16NDEPC	0.76393	0.95304	0.20490	0.27999	0.01230	-0.07760	0.16182	0.96766	0.96039	0.96599	0.95304	0.69731
7	K20NDEPC	0.81775	0.76547	-0.01188	0.05627	-0.22714	-0.31994	-0.06002	0.70183	0.75620	0.74542	0.76547	0.81542
8	K24NDEPC	0.78280	0.74216	0.02027	0.08659	-0.19178	-0.28418	-0.02689	0.68766	0.73440	0.72528	0.74216	0.77899
9	K28NDEPC	0.76938	0.77008	0.12442	0.19161	-0.09367	-0.19135	0.07658	0.73679	0.76616	0.76110	0.77008	0.75638
10	K32NDEPC	0.73481	0.80462	0.30163	0.36876	0.07789	-0.02671	0.25370	0.80727	0.80716	0.80896	0.80462	0.70659
11	K36NDEPC	0.65884	0.80842	0.50641	0.57003	0.28634	0.17826	0.46066	0.85442	0.81863	0.82861	0.80842	0.61369
12	K40NDEPC	0.47615	0.69545	0.71558	0.76463	0.53086	0.43172	0.67968	0.78834	0.71349	0.73204	0.69545	0.41905
13	K46NDEPC	0.46862	0.51725	0.28199	0.32553	0.12774	0.05070	0.25039	0.53112	0.52069	0.52395	0.51725	0.45259
14	K50NDEPC	0.46351	0.57100	0.44720	0.49124	0.28652	0.20237	0.41541	0.61355	0.57966	0.58843	0.57100	0.43369
15	KGTNDEPC	0.46351	0.57100	0.44720	0.49124	0.28652	0.20237	0.41541	0.61355	0.57966	0.58843	0.57100	0.43369

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR NARROW CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.74409	0.60011	-0.22610	-0.18318	-0.34846	-0.39453	-0.25380	0.46889	0.57938	0.55537	0.60011	0.74919
2	0.75427	0.68913	-0.14198	-0.09225	-0.27210	-0.32666	-0.17055	0.58278	0.67389	0.65512	0.68913	0.73863
3	0.75803	0.72188	-0.11020	-0.05671	-0.24859	-0.30816	-0.14039	0.62730	0.70905	0.69267	0.72188	0.73581
4	0.71082	0.75835	-0.00439	0.05578	-0.15639	-0.22626	-0.03693	0.70474	0.75335	0.74501	0.75835	0.67186
5	0.63572	0.76325	0.11040	0.17528	-0.05120	-0.12960	0.07635	0.75462	0.76646	0.76677	0.76325	0.58273
6	0.60717	0.76547	0.18634	0.25463	0.01180	-0.07445	0.14984	0.77951	0.77250	0.77701	0.76547	0.54999
7	0.63030	0.59655	-0.01055	0.04995	-0.21321	-0.30030	-0.05429	0.54865	0.59024	0.58183	0.59655	0.62346
8	0.52970	0.50904	0.01627	0.06949	-0.16443	-0.24366	-0.02207	0.47345	0.50467	0.49841	0.50904	0.52194
9	0.47210	0.47996	0.09275	0.14284	-0.07521	-0.15364	0.05855	0.46122	0.47857	0.47541	0.47996	0.45885
10	0.41926	0.46710	0.21311	0.26054	0.05965	-0.02045	0.18422	0.47091	0.46971	0.47075	0.46710	0.39808
11	0.36734	0.45885	0.35183	0.39602	0.21606	0.13450	0.32916	0.48739	0.46581	0.47149	0.45885	0.33772
12	0.23927	0.35671	0.46150	0.49313	0.37532	0.30523	0.45231	0.40668	0.36702	0.37656	0.35671	0.20742
13	0.11164	0.12957	0.11443	0.13210	0.06117	0.02428	0.10766	0.13489	0.13134	0.13216	0.12957	0.10381
14	0.11042	0.14303	0.18147	0.19934	0.13719	0.09690	0.17861	0.15582	0.14621	0.14842	0.14303	0.09948
15	0.11042	0.14303	0.18147	0.19934	0.13719	0.09690	0.17861	0.15582	0.14621	0.14842	0.14303	0.09948

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR TRANSITIONAL CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K06TDEPC	0.82817	0.95228	0.75412	0.77369	0.53807	0.52785	0.68644	0.96649	0.95562	0.95940	0.95228	0.79178
2	K08TDEPC	0.73640	0.91339	0.80290	0.82234	0.60822	0.59436	0.74149	0.93589	0.91772	0.92309	0.91339	0.69797
3	K10TDEPC	0.66404	0.87604	0.79742	0.81785	0.61459	0.59915	0.73784	0.89624	0.87958	0.88444	0.87604	0.63193
4	K12TDEPC	0.56522	0.82351	0.76557	0.78854	0.60341	0.58744	0.70746	0.83043	0.82392	0.82611	0.82351	0.54976
5	K14TDEPC	0.57587	0.82261	0.63060	0.85028	0.68760	0.67177	0.78157	0.84132	0.82490	0.82947	0.82261	0.55316
6	K16TDEPC	0.53180	0.79572	0.72090	0.74655	0.57702	0.56599	0.66254	0.78710	0.79911	0.79671	0.79572	0.53861
7	K20TDEPC	0.56332	0.68200	0.96837	0.96247	0.95033	0.95029	0.96462	0.74694	0.70140	0.71298	0.68200	0.51921
8	K24TDEPC	0.48623	0.56167	0.95122	0.93770	0.97422	0.97484	0.96624	0.64734	0.58531	0.60079	0.56167	0.42796
9	K28TDEPC	0.45178	0.52587	0.93677	0.92157	0.97404	0.97574	0.95553	0.61218	0.54991	0.56540	0.52587	0.39413
10	K32TDEPC	0.45890	0.58389	0.92129	0.91143	0.94288	0.94617	0.92622	0.66670	0.60368	0.61449	0.58389	0.41958
11	K36TDEPC	0.35795	0.46203	0.86255	0.84684	0.92500	0.93093	0.88038	0.53072	0.48331	0.49506	0.46203	0.31600
12	K40TDEPC	0.31673	0.47411	0.79315	0.78362	0.84188	0.84846	0.79764	0.51688	0.49020	0.49688	0.47411	0.29413
13	K46TDEPC	0.26033	0.45138	0.69104	0.68658	0.72871	0.73563	0.68522	0.47135	0.46249	0.46479	0.45138	0.25419
14	K50TDEPC	0.21442	0.41268	0.63897	0.63522	0.68082	0.68797	0.63251	0.42669	0.42241	0.42355	0.41268	0.21254
15	KGTTDEPC	0.21442	0.41268	0.63897	0.63522	0.68082	0.68797	0.63251	0.42669	0.42241	0.42355	0.41268	0.21254

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR TRANSITIONAL CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.41159	0.37177	0.23073	0.23672	0.16376	0.15862	0.20995	0.35493	0.36843	0.36533	0.37177	0.40007
2	0.39498	0.38483	0.26511	0.27153	0.19977	0.19275	0.24475	0.37091	0.38184	0.37935	0.38483	0.38060
3	0.38303	0.39694	0.28316	0.29042	0.21709	0.20896	0.26192	0.38199	0.39358	0.39088	0.39694	0.37059
4	0.35477	0.40603	0.29582	0.30469	0.23193	0.22294	0.27327	0.38515	0.40117	0.39728	0.40603	0.35082
5	0.37531	0.42113	0.33325	0.34114	0.27442	0.26471	0.31347	0.40515	0.41704	0.41419	0.42113	0.36652
6	0.40038	0.47059	0.33412	0.34601	0.26603	0.25764	0.30697	0.43787	0.46670	0.45958	0.47059	0.41227
7	0.43889	0.41739	0.46447	0.46164	0.45341	0.44766	0.46251	0.43001	0.42392	0.42561	0.41739	0.41127
8	0.38733	0.35147	0.46649	0.45985	0.47525	0.46954	0.47369	0.38104	0.36170	0.36670	0.35147	0.34660
9	0.37373	0.34172	0.47706	0.46932	0.49342	0.48803	0.48645	0.37420	0.35288	0.35836	0.34172	0.33147
10	0.39593	0.39572	0.48933	0.48409	0.49816	0.49357	0.49178	0.41228	0.40403	0.40621	0.39572	0.36803
11	0.32723	0.33178	0.48542	0.47658	0.51782	0.51455	0.49529	0.35849	0.34274	0.34675	0.33178	0.29369
12	0.31552	0.37100	0.48641	0.48056	0.51357	0.51104	0.48900	0.38047	0.37881	0.37924	0.37100	0.29037
13	0.24524	0.37512	0.45007	0.44717	0.47210	0.47056	0.44613	0.36847	0.37957	0.37675	0.37512	0.23497
14	0.19355	0.35572	0.43164	0.42911	0.45749	0.45645	0.42714	0.34597	0.35957	0.35610	0.35572	0.18796
15	0.19355	0.35572	0.43164	0.42911	0.45749	0.45645	0.42714	0.34597	0.35957	0.35610	0.35572	0.18796

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR WIDE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_WDEPC	FB_WDEPC	MA_WDEPC	AP_WDEPC	MY_WDEPC	JN_WDEPC	JL_WDEPC	AU_WDEPC	SP_WDEPC	OC_WDEPC	NO_WDEPC	DE_WDEPC
1	K06WDEPC	0.73622	0.76389	0.69096	0.74230	0.67694	0.52918	0.70532	0.77287	0.76849	0.77214	0.76389	0.81049
2	K08WDEPC	0.84838	0.81746	0.70887	0.73607	0.74734	0.58810	0.74057	0.79264	0.81565	0.81272	0.81746	0.90390
3	K10WDEPC	0.92973	0.86445	0.73312	0.73747	0.80933	0.65293	0.77606	0.81436	0.85764	0.84960	0.86445	0.96104
4	K12WDEPC	0.94636	0.88800	0.76018	0.75979	0.83806	0.68820	0.80297	0.83729	0.88091	0.87256	0.88800	0.96964
5	K14WDEPC	0.96551	0.90357	0.77673	0.76337	0.86548	0.72447	0.82189	0.84620	0.89497	0.88511	0.90357	0.97563
6	K16WDEPC	0.96435	0.92365	0.81223	0.79944	0.89027	0.75825	0.85322	0.87424	0.91635	0.90779	0.92365	0.97157
7	K20WDEPC	0.79605	0.91592	0.94358	0.96269	0.91749	0.84427	0.94833	0.94738	0.92235	0.92791	0.91592	0.81722
8	K24WDEPC	0.54331	0.74413	0.80477	0.87168	0.68108	0.62791	0.77673	0.82668	0.76071	0.77683	0.74413	0.60004
9	K28WDEPC	0.48634	0.69303	0.74445	0.82223	0.60443	0.54928	0.71113	0.78137	0.71105	0.72868	0.69303	0.55180
10	K32WDEPC	0.58884	0.76513	0.79065	0.85916	0.68062	0.60597	0.76870	0.83600	0.78011	0.79452	0.76513	0.65049
11	K36WDEPC	0.65574	0.78077	0.75572	0.82242	0.67804	0.56860	0.74693	0.82906	0.79232	0.80316	0.78077	0.72497
12	K40WDEPC	0.82037	0.87737	0.81067	0.84833	0.80128	0.66954	0.82540	0.88615	0.88149	0.88461	0.87737	0.86989
13	K46WDEPC	0.88064	0.91542	0.84151	0.86186	0.86080	0.73066	0.86505	0.90857	0.91627	0.91602	0.91542	0.91420
14	K50WDEPC	0.93929	0.91532	0.81416	0.80781	0.88902	0.75301	0.85519	0.87616	0.90987	0.90320	0.91532	0.95230
15	KGTWDEPC	0.93929	0.91532	0.81416	0.80781	0.88902	0.75301	0.85519	0.87616	0.90987	0.90320	0.91532	0.95230

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR WIDE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_WDADJ	FB_WDADJ	MA_WDADJ	AP_WDADJ	MY_WDADJ	JN_WDADJ	JL_WDADJ	AU_WDADJ	SP_WDADJ	OC_WDADJ	NO_WDADJ	DE_WDADJ
1	0.62875	0.71863	0.37278	0.40356	0.34849	0.26826	0.37520	0.65391	0.70713	0.69527	0.71863	0.68721
2	0.70698	0.78291	0.38935	0.40740	0.39168	0.30351	0.40106	0.68274	0.76407	0.74502	0.78291	0.74761
3	0.71543	0.85569	0.42470	0.43051	0.44737	0.35540	0.44328	0.73983	0.84736	0.82144	0.85569	0.73320
4	0.71424	0.86824	0.44566	0.44887	0.46882	0.37909	0.46416	0.76979	0.88080	0.85377	0.86824	0.72536
5	0.67163	0.83962	0.47697	0.47238	0.50713	0.41802	0.49764	0.81490	0.85261	0.86307	0.83962	0.67187
6	0.63207	0.82781	0.51414	0.50995	0.53773	0.45099	0.53253	0.86785	0.84340	0.85652	0.82781	0.62981
7	0.65067	0.88920	0.52535	0.54012	0.48743	0.44167	0.52061	0.82719	0.87584	0.86225	0.88920	0.66281
8	0.31693	0.62287	0.53674	0.58585	0.43344	0.39349	0.51079	0.78871	0.65611	0.68894	0.62287	0.34548
9	0.17994	0.45871	0.57129	0.63584	0.44259	0.39605	0.53808	0.62240	0.49147	0.52408	0.45871	0.19934
10	0.14895	0.43294	0.65030	0.71209	0.53416	0.46830	0.62339	0.59369	0.46590	0.49838	0.43294	0.15847
11	-0.02752	0.25276	0.72649	0.79671	0.62197	0.51360	0.70799	0.40824	0.28557	0.31769	0.25276	-0.03834
12	-0.08000	0.24402	0.80052	0.84417	0.75501	0.62123	0.80366	0.40001	0.27839	0.31129	0.24402	-0.09459
13	-0.16655	0.18576	0.81575	0.82864	0.84651	0.70755	0.85105	0.34868	0.22197	0.25641	0.18576	-0.18360
14	-0.21761	0.15377	0.77294	0.76036	0.88678	0.74336	0.82446	0.30872	0.18934	0.22262	0.15377	-0.23199
15	-0.21761	0.15377	0.77294	0.76036	0.88678	0.74336	0.82446	0.30872	0.18934	0.22262	0.15377	-0.23199

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DIVIDED CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K06DVEPC	0.60099	0.35811	0.18585	0.19690	0.25295	0.22555	0.21086	0.29113	0.34539	0.33226	0.35811	0.56508
2	K08DVEPC	0.86105	0.69768	0.12235	0.18887	0.18032	0.19125	0.14191	0.63289	0.68600	0.67363	0.69768	0.83576
3	K10DVEPC	0.91346	0.83217	0.30115	0.38422	0.35171	0.37813	0.31608	0.79525	0.82636	0.81974	0.83217	0.91097
4	K12DVEPC	0.91860	0.82138	0.19144	0.27772	0.24087	0.26799	0.20685	0.77420	0.81348	0.80478	0.82138	0.90673
5	K14DVEPC	0.93666	0.90753	0.27290	0.37804	0.30655	0.35154	0.28148	0.88796	0.90525	0.90215	0.90753	0.94121
6	K16DVEPC	0.90475	0.89871	0.46490	0.56487	0.48197	0.52782	0.46658	0.90247	0.90088	0.90236	0.89871	0.91863
7	K20DVEPC	0.57760	0.69628	0.68231	0.76164	0.68417	0.73428	0.67768	0.75994	0.71002	0.72334	0.69628	0.62991
8	K24DVEPC	0.45503	0.57223	0.71749	0.78389	0.70680	0.75394	0.70866	0.65005	0.58838	0.60433	0.57223	0.51324
9	K28DVEPC	0.38830	0.44643	0.80617	0.84921	0.76454	0.80263	0.78724	0.52743	0.46257	0.47881	0.44643	0.44372
10	K32DVEPC	0.32585	0.36829	0.88598	0.90315	0.84229	0.86219	0.86759	0.43860	0.38219	0.39622	0.36829	0.34807
11	K36DVEPC	0.30110	0.36784	0.88585	0.90226	0.82963	0.84944	0.86326	0.43959	0.38195	0.39623	0.36784	0.32285
12	K40DVEPC	0.29250	0.36770	0.89059	0.90517	0.83157	0.84951	0.86722	0.43697	0.38131	0.39509	0.36770	0.31264
13	K46DVEPC	0.18845	0.28732	0.88002	0.88021	0.81521	0.82197	0.86708	0.33716	0.29686	0.30667	0.28732	0.20113
14	K50DVEPC	0.16787	0.27469	0.80997	0.81509	0.76107	0.77181	0.79503	0.32583	0.28443	0.29446	0.27469	0.17987
15	K9TDVEPC	0.16787	0.27469	0.80997	0.81509	0.76107	0.77181	0.79503	0.32583	0.28443	0.29446	0.27469	0.17987

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DIVIDED CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.37853	0.21666	0.06916	0.07781	0.08471	0.07492	0.07574	0.16925	0.20727	0.19780	0.21666	0.37350
2	0.54232	0.42209	0.04553	0.07463	0.06038	0.06353	0.05097	0.36794	0.41168	0.40102	0.42209	0.55261
3	0.64696	0.56614	0.12602	0.17072	0.13244	0.14124	0.12766	0.51989	0.55766	0.54876	0.56614	0.67708
4	0.78484	0.67410	0.09664	0.14886	0.10941	0.12075	0.10078	0.61055	0.66223	0.64991	0.67410	0.81298
5	0.80026	0.74480	0.13776	0.20263	0.13925	0.15840	0.13714	0.70027	0.73694	0.72853	0.74480	0.84390
6	0.81446	0.77712	0.24728	0.31902	0.23068	0.25058	0.23952	0.74989	0.77271	0.76779	0.77712	0.86783
7	0.55054	0.69240	0.42203	0.50022	0.38079	0.40539	0.40456	0.73431	0.70822	0.71573	0.69240	0.56781
8	0.40081	0.52931	0.47644	0.55039	0.42056	0.44499	0.45227	0.62859	0.54935	0.56940	0.52931	0.42370
9	0.32305	0.39198	0.55637	0.62230	0.47479	0.49442	0.52437	0.48622	0.41034	0.42901	0.39198	0.34355
10	0.23085	0.28122	0.67381	0.72933	0.57642	0.58529	0.63684	0.35610	0.29565	0.31039	0.28122	0.22597
11	0.19777	0.26109	0.70303	0.76031	0.59246	0.60172	0.66123	0.33417	0.27508	0.28942	0.26109	0.19062
12	0.17454	0.23977	0.73841	0.79688	0.62041	0.62869	0.69398	0.30795	0.25279	0.26615	0.23977	0.16488
13	0.11246	0.18735	0.72965	0.77491	0.60821	0.60831	0.69386	0.23761	0.19681	0.20658	0.18735	0.10607
14	0.10018	0.17912	0.67157	0.71758	0.56781	0.57119	0.63621	0.22962	0.18856	0.19836	0.17912	0.09486
15	0.10018	0.17912	0.67157	0.71758	0.56781	0.57119	0.63621	0.22962	0.18856	0.19836	0.17912	0.09486

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NARROW CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K06NVEPC	-0.15921	-0.20002	-0.23781	-0.25015	-0.26584	-0.24284	-0.24469	-0.22649	-0.20204	-0.20640	-0.20002	-0.11415
2	K08NVEPC	-0.01859	-0.18319	-0.26540	-0.27863	-0.27879	-0.27692	-0.27432	-0.18003	-0.18267	-0.18439	-0.18319	0.11953
3	K10NVEPC	0.34652	0.02893	-0.30033	-0.30489	-0.30665	-0.30350	-0.30701	0.03465	0.03225	0.03430	0.02893	0.50958
4	K12NVEPC	0.60055	0.25255	-0.30708	-0.27941	-0.29386	-0.29108	-0.30103	0.23252	0.25197	0.25160	0.25255	0.72606
5	K14NVEPC	0.76649	0.41630	-0.30662	-0.24523	-0.30813	-0.31495	-0.29987	0.39276	0.41325	0.41197	0.41630	0.86850
6	K16NVEPC	0.93271	0.64395	-0.24788	-0.13524	-0.27352	-0.29412	-0.24207	0.60173	0.63321	0.62666	0.64395	0.94623
7	K20NVEPC	0.64700	0.88067	0.45777	0.60600	0.24220	0.13822	0.41496	0.96969	0.89235	0.90978	0.88067	0.52578
8	K24NVEPC	0.45815	0.76554	0.71369	0.82266	0.52269	0.41817	0.67942	0.88593	0.77990	0.80122	0.76554	0.33752
9	K28NVEPC	0.28365	0.61153	0.87156	0.93937	0.71021	0.61052	0.84598	0.75700	0.62766	0.65159	0.61153	0.17422
10	K32NVEPC	0.22488	0.56661	0.89278	0.95318	0.72138	0.61828	0.86387	0.73159	0.58598	0.61329	0.56661	0.11776
11	K36NVEPC	0.08356	0.42788	0.94282	0.97504	0.78022	0.67931	0.91548	0.62205	0.45076	0.48214	0.42788	-0.00828
12	K40NVEPC	0.02026	0.34639	0.94735	0.96128	0.81833	0.72903	0.92900	0.53401	0.36644	0.39549	0.34639	-0.05858
13	K46NVEPC	0.03339	0.21247	0.86100	0.82422	0.95681	0.94188	0.90485	0.22277	0.20283	0.19888	0.21247	-0.02469
14	K50NVEPC	0.00063	0.15544	0.80396	0.75194	0.96088	0.96549	0.86395	0.14626	0.14347	0.13630	0.15544	-0.05131
15	K9TNVEPC	0.00063	0.15544	0.80396	0.75194	0.96088	0.96549	0.86395	0.14626	0.14347	0.13630	0.15544	-0.05131

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NARROW CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_NVADJ	FB_NVADJ	MA_NVADJ	AP_NVADJ	MY_NVADJ	JN_NVADJ	JL_NVADJ	AU_NVADJ	SP_NVADJ	OC_NVADJ	NO_NVADJ	DE_NVADJ
1	-0.12956	-0.16443	-0.22036	-0.23180	-0.23989	-0.23696	-0.23072	-0.18672	-0.16633	-0.16991	-0.16443	-0.09221
2	-0.01513	-0.15060	-0.24593	-0.25819	-0.27204	-0.27022	-0.25866	-0.14842	-0.15038	-0.15180	-0.15060	0.09656
3	0.28200	0.02378	-0.27830	-0.28252	-0.29922	-0.29616	-0.28948	0.02857	0.02655	0.02824	0.02378	0.41167
4	0.47732	0.20284	-0.27927	-0.25410	-0.28192	-0.27926	-0.27874	0.18731	0.20267	0.20238	0.20284	0.57267
5	0.60920	0.33437	-0.27885	-0.22302	-0.29561	-0.30215	-0.27767	0.31639	0.33241	0.33138	0.33437	0.68502
6	0.74131	0.51721	-0.22543	-0.12299	-0.26241	-0.28217	-0.22415	0.48473	0.50933	0.50406	0.51721	0.74632
7	0.49869	0.68633	0.40635	0.53794	0.22734	0.12974	0.37535	0.75805	0.69652	0.71012	0.68633	0.40201
8	0.31002	0.52507	0.57276	0.66021	0.44815	0.35854	0.55760	0.60996	0.53594	0.55059	0.52507	0.22614
9	0.17405	0.38114	0.64973	0.70027	0.57026	0.49021	0.64675	0.47388	0.39205	0.40700	0.38114	0.10569
10	0.12831	0.32893	0.63077	0.67344	0.55241	0.47346	0.62729	0.42676	0.34100	0.35689	0.32893	0.06634
11	0.04659	0.24286	0.65502	0.67741	0.58870	0.51257	0.65415	0.35484	0.25649	0.27435	0.24286	-0.00455
12	0.01018	0.17767	0.61097	0.61995	0.57856	0.51543	0.61823	0.27548	0.18850	0.20344	0.17767	-0.02900
13	0.00795	0.05322	0.34939	0.33446	0.45814	0.45099	0.38906	0.05658	0.05116	0.05016	0.05322	-0.00566
14	0.00015	0.03894	0.32624	0.30513	0.46010	0.46230	0.37147	0.03714	0.03619	0.03438	0.03894	-0.01177
15	0.00015	0.03894	0.32624	0.30513	0.46010	0.46230	0.37147	0.03714	0.03619	0.03438	0.03894	-0.01177

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR TRANSITIONAL CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K06TVEPC	0.71051	0.73909	0.32143	0.39581	0.21486	0.17377	0.29183	0.76437	0.76531	0.78131	0.73909	0.79011
2	K08TVEPC	0.82962	0.85111	0.48069	0.54603	0.38364	0.34413	0.45415	0.84821	0.87311	0.88391	0.85111	0.88312
3	K10TVEPC	0.87307	0.91100	0.53872	0.59329	0.45647	0.42292	0.51634	0.84061	0.91945	0.91621	0.91100	0.89757
4	K12TVEPC	0.80967	0.91338	0.42883	0.46677	0.36997	0.34652	0.41283	0.66233	0.88303	0.86101	0.91338	0.78075
5	K14TVEPC	0.81582	0.91515	0.45761	0.49228	0.40430	0.38331	0.44318	0.66602	0.88501	0.84330	0.91515	0.78268
6	K16TVEPC	0.68545	0.83434	0.26436	0.29324	0.21774	0.19943	0.25161	0.47479	0.77903	0.71292	0.83434	0.62940
7	K20TVEPC	0.84674	0.77576	0.66148	0.70909	0.54049	0.49552	0.61469	0.94892	0.83261	0.87964	0.77576	0.92100
8	K24TVEPC	0.87832	0.78753	0.76135	0.81651	0.67758	0.63910	0.73938	0.97114	0.84594	0.89481	0.78753	0.93529
9	K28TVEPC	0.88500	0.77684	0.85720	0.90018	0.79182	0.76108	0.84032	0.96712	0.83550	0.88515	0.77684	0.92413
10	K32TVEPC	0.84902	0.72949	0.90730	0.93749	0.86363	0.84352	0.89625	0.92524	0.78745	0.83730	0.72949	0.87457
11	K36TVEPC	0.80601	0.67846	0.93581	0.95431	0.91045	0.89852	0.92979	0.87173	0.73402	0.78235	0.67846	0.81682
12	K40TVEPC	0.80516	0.67739	0.93828	0.95596	0.91383	0.90219	0.93253	0.87058	0.73287	0.78115	0.67739	0.81538
13	K46TVEPC	0.72149	0.58920	0.92705	0.93238	0.92503	0.92478	0.92732	0.78370	0.64234	0.68957	0.58920	0.72202
14	K50TVEPC	0.67222	0.53842	0.91101	0.91067	0.91955	0.92461	0.91413	0.73113	0.58973	0.63584	0.53842	0.66728
15	K8TTVEPC	0.67222	0.53842	0.91101	0.91067	0.91955	0.92461	0.91413	0.73113	0.58973	0.63584	0.53842	0.66728

GAVINS TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR TRANSITIONAL CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.35312	0.28854	0.09835	0.12110	0.06539	0.05222	0.08926	0.28070	0.29506	0.29752	0.28854	0.39923
2	0.44497	0.35859	0.15872	0.18029	0.12601	0.11160	0.14991	0.33616	0.36328	0.36325	0.35859	0.48157
3	0.50360	0.41278	0.19130	0.21068	0.16124	0.14750	0.18329	0.35829	0.41142	0.40492	0.41278	0.52637
4	0.50820	0.45034	0.16570	0.18036	0.14220	0.13151	0.15947	0.30718	0.42995	0.40445	0.45034	0.49822
5	0.53169	0.46850	0.18360	0.19751	0.16135	0.15104	0.17775	0.32073	0.44743	0.42110	0.46850	0.51860
6	0.51605	0.49343	0.12253	0.13591	0.10039	0.09078	0.11658	0.26413	0.45498	0.41125	0.49343	0.48176
7	0.65971	0.47478	0.30768	0.34011	0.25787	0.23343	0.29473	0.54629	0.50322	0.52510	0.47478	0.72953
8	0.69968	0.49280	0.37337	0.40042	0.33054	0.30782	0.36247	0.57164	0.52276	0.54615	0.49280	0.75748
9	0.73210	0.50480	0.43654	0.45842	0.40111	0.38067	0.42779	0.59116	0.53615	0.56102	0.50480	0.77722
10	0.73251	0.49439	0.48190	0.49793	0.45629	0.44003	0.47587	0.58985	0.52703	0.55349	0.49439	0.76713
11	0.73682	0.48720	0.52665	0.53706	0.50967	0.49664	0.52308	0.58884	0.52053	0.54797	0.48720	0.75916
12	0.80208	0.53007	0.57541	0.58625	0.55746	0.54340	0.57169	0.64082	0.56634	0.59622	0.53007	0.80496
13	0.67967	0.48966	0.60379	0.60726	0.59929	0.59156	0.60376	0.61265	0.52717	0.55897	0.48966	0.66744
14	0.60679	0.46410	0.61542	0.61519	0.61791	0.61345	0.61731	0.59282	0.50200	0.53459	0.46410	0.59013
15	0.60679	0.46410	0.61542	0.61519	0.61791	0.61345	0.61731	0.59282	0.50200	0.53459	0.46410	0.59013

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR WIDE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_WVEPC	FB_WVEPC	MA_WVEPC	AP_WVEPC	MY_WVEPC	JN_WVEPC	JL_WVEPC	AU_WVEPC	SP_WVEPC	OC_WVEPC	NO_WVEPC	DE_WVEPC
1	K06WVEPC	0.20886	0.29669	0.14258	0.20202	0.13165	0.12328	0.14021	0.34303	0.30664	0.31625	0.29669	0.35221
2	K08WVEPC	0.42806	0.47542	0.31763	0.39419	0.26350	0.24969	0.30257	0.51596	0.48441	0.49296	0.47542	0.55236
3	K10WVEPC	0.58804	0.62805	0.47987	0.54989	0.42093	0.40744	0.46424	0.65977	0.63540	0.64225	0.62805	0.69468
4	K12WVEPC	0.73540	0.75234	0.61958	0.69007	0.54317	0.53006	0.59864	0.77695	0.75837	0.76384	0.75234	0.81622
5	K14WVEPC	0.75442	0.78708	0.65987	0.72065	0.59851	0.58805	0.64376	0.81110	0.79301	0.79837	0.78708	0.83618
6	K16WVEPC	0.81285	0.85137	0.73955	0.79037	0.68577	0.67736	0.72615	0.87262	0.85678	0.86160	0.85137	0.88507
7	K20WVEPC	0.83073	0.87120	0.76541	0.81224	0.71504	0.70742	0.75318	0.89112	0.87635	0.88090	0.87120	0.89931
8	K24WVEPC	0.75247	0.83721	0.74022	0.76215	0.73782	0.73461	0.74295	0.85702	0.84227	0.84676	0.83721	0.83494
9	K28WVEPC	0.81722	0.87042	0.76883	0.80955	0.72944	0.72281	0.76016	0.89184	0.87586	0.88071	0.87042	0.89017
10	K32WVEPC	0.89856	0.92938	0.84788	0.89000	0.79035	0.78204	0.83396	0.94698	0.93408	0.93818	0.92938	0.95000
11	K36WVEPC	0.93269	0.97471	0.93465	0.95033	0.90435	0.89833	0.92973	0.98360	0.97761	0.97993	0.97471	0.96409
12	K40WVEPC	0.93716	0.97569	0.97197	0.97169	0.94597	0.93758	0.96993	0.97824	0.97723	0.97824	0.97569	0.94797
13	K46WVEPC	0.85802	0.91125	0.94125	0.91782	0.95523	0.94749	0.95084	0.90756	0.91138	0.91105	0.91125	0.86357
14	K50WVEPC	0.82894	0.88029	0.92108	0.89325	0.94045	0.94048	0.93245	0.87423	0.87988	0.87905	0.88029	0.83085
15	K8TWVEPC	0.82894	0.88029	0.92108	0.89325	0.94045	0.94048	0.93245	0.87423	0.87988	0.87905	0.88029	0.83085

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR WIDE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_WVADJ	FB_WVADJ	MA_WVADJ	AP_WVADJ	MY_WVADJ	JN_WVADJ	JL_WVADJ	AU_WVADJ	SP_WVADJ	OC_WVADJ	NO_WVADJ	DE_WVADJ
1	0.17837	0.27911	0.07692	0.10983	0.06777	0.06250	0.07459	0.29023	0.28216	0.28477	0.27911	0.29863
2	0.35672	0.45533	0.17446	0.21818	0.13810	0.12886	0.16386	0.44442	0.45378	0.45189	0.45533	0.45686
3	0.45250	0.62169	0.27799	0.32100	0.23268	0.22178	0.26517	0.59938	0.62779	0.62096	0.62169	0.52999
4	0.55503	0.73560	0.36323	0.40767	0.30385	0.29198	0.34604	0.71431	0.75828	0.74738	0.73560	0.61059
5	0.52479	0.73138	0.40522	0.44595	0.35070	0.33930	0.38979	0.78110	0.75547	0.77849	0.73138	0.57584
6	0.53277	0.76303	0.46814	0.50416	0.41421	0.40287	0.45322	0.86624	0.78858	0.81294	0.76303	0.57374
7	0.67902	0.84578	0.42615	0.45571	0.37988	0.37008	0.41347	0.77806	0.83216	0.81857	0.84578	0.72939
8	0.43894	0.70078	0.49369	0.51223	0.46955	0.46035	0.48857	0.81766	0.72645	0.75096	0.70078	0.48072
9	0.30235	0.57613	0.58999	0.62603	0.53413	0.52118	0.57517	0.71039	0.60538	0.63343	0.57613	0.32158
10	0.22730	0.52587	0.69736	0.73765	0.62028	0.60437	0.67632	0.67250	0.55786	0.58849	0.52587	0.23143
11	-0.03914	0.31555	0.89850	0.92062	0.82956	0.81143	0.88127	0.48434	0.35235	0.38761	0.31555	-0.05098
12	-0.09139	0.27137	0.95980	0.96692	0.89135	0.86993	0.94438	0.44158	0.30862	0.34424	0.27137	-0.10308
13	-0.16227	0.18492	0.91244	0.88243	0.93938	0.91751	0.93545	0.34829	0.22079	0.25502	0.18492	-0.17343
14	-0.19205	0.14788	0.87444	0.84078	0.93807	0.92843	0.89893	0.30804	0.18310	0.21667	0.14788	-0.20241
15	-0.19205	0.14788	0.87444	0.84078	0.93807	0.92843	0.89893	0.30804	0.18310	0.21667	0.14788	-0.20241

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR DIVIDED CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K060DEPC	0.75984	0.55032	0.53613	0.54314	0.53613	0.53613	0.53613	0.48325	0.50632	0.52868	0.57126	0.80254
2	K080DEPC	0.87891	0.72180	0.36290	0.36173	0.36290	0.36290	0.36290	0.65320	0.67707	0.69993	0.74267	0.91109
3	K100DEPC	0.91355	0.75859	0.46792	0.46795	0.46792	0.46792	0.46792	0.69244	0.71555	0.73754	0.77815	0.94207
4	K120DEPC	0.93521	0.78832	0.56611	0.56697	0.56611	0.56611	0.56611	0.72730	0.74888	0.76921	0.80626	0.95877
5	K140DEPC	0.94549	0.80771	0.60521	0.60606	0.60521	0.60521	0.60521	0.75015	0.77063	0.78981	0.82438	0.96557
6	K160DEPC	0.96288	0.83946	0.56556	0.56454	0.56556	0.56556	0.56556	0.78292	0.80311	0.82195	0.85570	0.98007
7	K200DEPC	0.93919	0.84249	0.77209	0.77267	0.77209	0.77209	0.77209	0.80446	0.81848	0.83113	0.85263	0.94510
8	K240DEPC	0.98308	0.94158	0.70963	0.70460	0.70963	0.70963	0.70963	0.91433	0.92484	0.93389	0.94798	0.97678
9	K280DEPC	0.97394	0.93506	0.74307	0.73837	0.74307	0.74307	0.74307	0.91092	0.92036	0.92837	0.94051	0.96649
10	K320DEPC	0.96185	0.90800	0.77256	0.76961	0.77256	0.77256	0.77256	0.88158	0.89176	0.90053	0.91426	0.95744
11	K360DEPC	0.97790	0.96694	0.69774	0.69030	0.69774	0.69774	0.69774	0.94882	0.95625	0.96226	0.97061	0.96477
12	KA00DEPC	0.96006	0.98426	0.66030	0.64965	0.66030	0.66030	0.66030	0.97612	0.98016	0.98283	0.98456	0.93972
13	K440DEPC	0.92453	0.98345	0.61729	0.60350	0.61729	0.61729	0.61729	0.98605	0.98638	0.98547	0.98044	0.89747
14	K500DEPC	0.89088	0.97498	0.61203	0.59682	0.61203	0.61203	0.61203	0.98682	0.98397	0.97999	0.96907	0.85817
15	KSTDDEPC	0.89088	0.97498	0.61203	0.59682	0.61203	0.61203	0.61203	0.98682	0.98397	0.97999	0.96907	0.85817

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DIVIDED CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.46462	0.31159	0.17809	0.18188	0.17809	0.17809	0.17809	0.26497	0.28057	0.29612	0.32700	0.49196
2	0.53742	0.40868	0.12054	0.12113	0.12054	0.12054	0.12054	0.35816	0.37520	0.39204	0.42512	0.55848
3	0.62815	0.48286	0.17478	0.17621	0.17478	0.17478	0.17478	0.42694	0.44589	0.46453	0.50088	0.64936
4	0.77572	0.60547	0.25509	0.25755	0.25509	0.25509	0.25509	0.54096	0.56294	0.58444	0.62604	0.79723
5	0.78425	0.62036	0.27270	0.27530	0.27270	0.27270	0.27270	0.55796	0.57929	0.60009	0.64013	0.80289
6	0.86151	0.67933	0.26851	0.27020	0.26851	0.26851	0.26851	0.61356	0.63609	0.65801	0.70009	0.85866
7	0.92387	0.79284	0.42627	0.43005	0.42627	0.42627	0.42627	0.73314	0.75385	0.77374	0.81120	0.92730
8	0.89803	0.93587	0.41884	0.41925	0.41884	0.41884	0.41884	0.89083	0.91065	0.92945	0.93175	0.88966
9	0.84348	0.88830	0.45774	0.45853	0.45774	0.45774	0.45774	0.89557	0.89490	0.89243	0.88262	0.83431
10	0.72175	0.76534	0.52445	0.52668	0.52445	0.52445	0.52445	0.77529	0.77361	0.77025	0.75899	0.71547
11	0.68061	0.76634	0.49426	0.49296	0.49426	0.49426	0.49426	0.78816	0.78244	0.77512	0.75621	0.66836
12	0.61220	0.72691	0.48866	0.48469	0.48866	0.48866	0.48866	0.75979	0.75018	0.73918	0.71347	0.59606
13	0.58954	0.72631	0.45684	0.45026	0.45684	0.45684	0.45684	0.76751	0.75494	0.74117	0.71049	0.56926
14	0.56809	0.72005	0.45294	0.44527	0.45294	0.45294	0.45294	0.76811	0.75311	0.73704	0.70225	0.54433
15	0.56809	0.72005	0.45294	0.44527	0.45294	0.45294	0.45294	0.76811	0.75311	0.73704	0.70225	0.54433

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR NARROW CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K06NDEPC	0.81404	0.42644	-0.40431	-0.38854	-0.40431	-0.40431	-0.40431	0.21324	0.29606	0.36634	0.47832	0.85605
2	K08NDEPC	0.89399	0.57618	-0.33476	-0.31596	-0.33476	-0.33476	-0.33476	0.36184	0.44761	0.51795	0.62488	0.91535
3	K10NDEPC	0.92239	0.63722	-0.31581	-0.29521	-0.31581	-0.31581	-0.31581	0.42563	0.51146	0.58073	0.68379	0.93611
4	K12NDEPC	0.95326	0.77953	-0.23584	-0.21109	-0.23584	-0.23584	-0.23584	0.59023	0.67037	0.73185	0.81690	0.94448
5	K14NDEPC	0.92256	0.87959	-0.13509	-0.10712	-0.13509	-0.13509	-0.13509	0.73013	0.79741	0.84533	0.90405	0.89171
6	K16NDEPC	0.90961	0.93292	-0.07760	-0.04667	-0.07760	-0.07760	-0.07760	0.81200	0.86903	0.90737	0.94955	0.87028
7	K20NDEPC	0.79392	0.63202	-0.31994	-0.28779	-0.31994	-0.31994	-0.31994	0.50299	0.55686	0.59868	0.65926	0.80704
8	K24NDEPC	0.76574	0.62579	-0.28418	-0.25210	-0.28418	-0.28418	-0.28418	0.50869	0.55788	0.59577	0.65018	0.77629
9	K28NDEPC	0.77953	0.69019	-0.19135	-0.15727	-0.19135	-0.19135	-0.19135	0.59169	0.63418	0.66586	0.70936	0.78115
10	K32NDEPC	0.79036	0.78708	-0.02671	0.01006	-0.02671	-0.02671	-0.02671	0.72179	0.75212	0.77275	0.79716	0.77703
11	K36NDEPC	0.76630	0.86735	0.17826	0.21658	0.17826	0.17826	0.17826	0.84607	0.85989	0.86595	0.86585	0.73562
12	K40NDEPC	0.62660	0.84180	0.43172	0.46735	0.43172	0.43172	0.43172	0.88247	0.87174	0.85750	0.82566	0.58056
13	K46NDEPC	0.50410	0.52993	0.05070	0.07801	0.05070	0.05070	0.05070	0.50734	0.51889	0.52581	0.53232	0.49490
14	K50NDEPC	0.53828	0.63289	0.20237	0.23261	0.20237	0.20237	0.20237	0.63542	0.63785	0.63640	0.62828	0.51640
15	KSTNDEPC	0.53828	0.63289	0.20237	0.23261	0.20237	0.20237	0.20237	0.63542	0.63785	0.63640	0.62828	0.51640

GAVINS TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL DEPTHS FOR NARROW CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.66824	0.35453	-0.39453	-0.37913	-0.39453	-0.39453	-0.39453	0.18019	0.24884	0.30624	0.39544	0.70273
2	0.73387	0.47902	-0.32666	-0.30831	-0.32666	-0.32666	-0.32666	0.30577	0.37622	0.43299	0.51661	0.75141
3	0.75718	0.52976	-0.30816	-0.28807	-0.30816	-0.30816	-0.30816	0.35967	0.42989	0.48547	0.56531	0.76845
4	0.76450	0.63346	-0.22626	-0.20251	-0.22626	-0.22626	-0.22626	0.48783	0.55099	0.59813	0.65999	0.75746
5	0.73989	0.71478	-0.12960	-0.10277	-0.12960	-0.12960	-0.12960	0.60346	0.65541	0.69088	0.73040	0.71514
6	0.72950	0.75811	-0.07445	-0.04477	-0.07445	-0.07445	-0.07445	0.67113	0.71427	0.74158	0.76716	0.69796
7	0.61776	0.49864	-0.30030	-0.27013	-0.30030	-0.30030	-0.30030	0.40396	0.44462	0.47518	0.51697	0.62796
8	0.52621	0.43571	-0.24366	-0.21615	-0.24366	-0.24366	-0.24366	0.36193	0.39412	0.41786	0.44933	0.53143
9	0.48478	0.43767	-0.15364	-0.12628	-0.15364	-0.15364	-0.15364	0.38466	0.40893	0.42581	0.44598	0.48579
10	0.45770	0.46573	-0.02045	0.00771	-0.02045	-0.02045	-0.02045	0.43899	0.45333	0.46152	0.46724	0.44998
11	0.43385	0.50210	0.13450	0.16342	0.13450	0.13450	0.13450	0.50385	0.50735	0.50613	0.49636	0.41649
12	0.32047	0.44165	0.30523	0.33042	0.30523	0.30523	0.30523	0.47822	0.46743	0.45486	0.42836	0.29693
13	0.12540	0.14006	0.02428	0.03735	0.02428	0.02428	0.02428	0.14439	0.14419	0.14256	0.13703	0.12311
14	0.13390	0.16727	0.09690	0.11128	0.09690	0.09690	0.09690	0.18084	0.17725	0.17254	0.16173	0.12846
15	0.13390	0.16727	0.09690	0.11128	0.09690	0.09690	0.09690	0.18084	0.17725	0.17254	0.16173	0.12846

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR TRANSITIONAL CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K06TDEPC	0.93556	0.96345	0.52785	0.53184	0.52785	0.52785	0.52785	0.93331	0.94728	0.95777	0.96619	0.91844
2	K08TDEPC	0.88307	0.94295	0.59436	0.59953	0.59436	0.59436	0.59436	0.93185	0.93890	0.94323	0.93979	0.85523
3	K10TDEPC	0.83792	0.90417	0.59915	0.60481	0.59915	0.59915	0.59915	0.89854	0.90338	0.90605	0.89974	0.80284
4	K12TDEPC	0.77630	0.83198	0.58744	0.59321	0.58744	0.58744	0.58744	0.82489	0.82940	0.83299	0.82902	0.73140
5	K14TDEPC	0.77483	0.85266	0.67177	0.67750	0.67177	0.67177	0.67177	0.86057	0.85961	0.85837	0.84487	0.73187
6	K16TDEPC	0.75096	0.78023	0.56599	0.57006	0.56599	0.56599	0.56599	0.75703	0.76602	0.77566	0.78327	0.70453
7	K20TDEPC	0.65262	0.79623	0.95029	0.95060	0.95029	0.95029	0.95029	0.85863	0.84104	0.81559	0.77614	0.63324
8	K24TDEPC	0.53614	0.71364	0.97484	0.97489	0.97484	0.97484	0.97484	0.80143	0.77506	0.74071	0.68629	0.52430
9	K28TDEPC	0.50012	0.67987	0.97574	0.97539	0.97574	0.97574	0.97574	0.77091	0.74343	0.70764	0.65198	0.48827
10	K32TDEPC	0.55252	0.69723	0.94617	0.94527	0.94617	0.94617	0.94617	0.76545	0.74590	0.71741	0.67674	0.53120
11	K36TDEPC	0.43265	0.58766	0.93093	0.92906	0.93093	0.93093	0.93093	0.66769	0.64404	0.61084	0.56457	0.41455
12	K40TDEPC	0.43856	0.55512	0.84846	0.84633	0.84846	0.84846	0.84846	0.61091	0.59541	0.57037	0.53983	0.41028
13	K46TDEPC	0.41281	0.49285	0.73563	0.73335	0.73563	0.73563	0.73563	0.52674	0.51842	0.50107	0.48450	0.37795
14	K50TDEPC	0.37330	0.44423	0.68797	0.68558	0.68797	0.68797	0.68797	0.47369	0.46673	0.45093	0.43747	0.33683
15	KGTTDEPC	0.37330	0.44423	0.68797	0.68558	0.68797	0.68797	0.68797	0.47369	0.46673	0.45093	0.43747	0.33683

GAVINS TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL DEPTHS FOR TRANSITIONAL CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.38975	0.34271	0.15862	0.16049	0.15862	0.15862	0.15862	0.32356	0.33118	0.33771	0.34659	0.40429
2	0.39702	0.36191	0.19275	0.19525	0.19275	0.19275	0.19275	0.34864	0.35426	0.35893	0.36383	0.40629
3	0.40514	0.37320	0.20896	0.21183	0.20896	0.20896	0.20896	0.36154	0.36656	0.37079	0.37460	0.41017
4	0.40843	0.37368	0.22294	0.22608	0.22294	0.22294	0.22294	0.36117	0.36621	0.37093	0.37558	0.40661
5	0.42528	0.39755	0.26471	0.26810	0.26471	0.26471	0.26471	0.39123	0.39610	0.39689	0.39743	0.42267
6	0.47391	0.42034	0.25764	0.26059	0.25764	0.25764	0.25764	0.39757	0.40570	0.41431	0.42563	0.46980
7	0.42621	0.44391	0.44766	0.44970	0.44766	0.44766	0.44766	0.46665	0.46095	0.45082	0.43646	0.43698
8	0.35800	0.40680	0.46954	0.47154	0.46954	0.46954	0.46954	0.44534	0.43433	0.41863	0.39460	0.36993
9	0.34678	0.40244	0.48803	0.48992	0.48803	0.48803	0.48803	0.44485	0.43262	0.41531	0.38928	0.35775
10	0.39958	0.43045	0.49357	0.49519	0.49357	0.49357	0.49357	0.46067	0.45270	0.43913	0.42143	0.40592
11	0.33153	0.38441	0.51455	0.51569	0.51455	0.51455	0.51455	0.42578	0.41617	0.39617	0.37251	0.33566
12	0.36621	0.39571	0.51104	0.51191	0.51104	0.51104	0.51104	0.42451	0.41725	0.40311	0.38815	0.36200
13	0.36608	0.37311	0.47056	0.47108	0.47056	0.47056	0.47056	0.38873	0.38583	0.37609	0.36997	0.35416
14	0.34336	0.34882	0.45645	0.45679	0.45645	0.45645	0.45645	0.36258	0.36028	0.35105	0.34649	0.32737
15	0.34336	0.34882	0.45645	0.45679	0.45645	0.45645	0.45645	0.36258	0.36028	0.35105	0.34649	0.32737

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR WIDE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_WDEPC	FB_WDEPC	MA_WDEPC	AP_WDEPC	MY_WDEPC	JN_WDEPC	JL_WDEPC	AU_WDEPC	SP_WDEPC	OC_WDEPC	NO_WDEPC	DE_WDEPC
1	K06WDEPC	0.76320	0.78228	0.52918	0.58396	0.52918	0.52918	0.52918	0.79569	0.79199	0.78612	0.77143	0.75888
2	K08WDEPC	0.83970	0.77961	0.58810	0.64781	0.58810	0.58810	0.58810	0.76887	0.77314	0.77520	0.77647	0.85037
3	K10WDEPC	0.90045	0.78248	0.65293	0.71270	0.65293	0.65293	0.65293	0.75010	0.76158	0.77096	0.78680	0.91959
4	K12WDEPC	0.92145	0.80295	0.68820	0.74612	0.68820	0.68820	0.68820	0.76697	0.77980	0.79061	0.80885	0.93869
5	K14WDEPC	0.93830	0.80525	0.72447	0.77980	0.72447	0.72447	0.72447	0.76106	0.77675	0.79052	0.81436	0.95626
6	K16WDEPC	0.94994	0.83625	0.75825	0.81068	0.75825	0.75825	0.75825	0.79453	0.80970	0.82299	0.84503	0.96248
7	K20WDEPC	0.87631	0.95223	0.84427	0.87571	0.84427	0.84427	0.84427	0.95694	0.95902	0.95948	0.94919	0.84875
8	K24WDEPC	0.67437	0.87015	0.62791	0.65011	0.62791	0.62791	0.62791	0.91599	0.90341	0.88944	0.85331	0.62543
9	K28WDEPC	0.62171	0.83129	0.54928	0.57161	0.54928	0.54928	0.54928	0.88363	0.86826	0.85153	0.81177	0.57095
10	K32WDEPC	0.70625	0.87483	0.60597	0.63573	0.60597	0.60597	0.60597	0.91530	0.90381	0.89075	0.85847	0.66342
11	K36WDEPC	0.74323	0.85823	0.56860	0.61039	0.56860	0.56860	0.56860	0.88886	0.87972	0.86874	0.84321	0.71341
12	K40WDEPC	0.86623	0.88850	0.66954	0.72039	0.66954	0.66954	0.66954	0.89046	0.89097	0.88946	0.88240	0.85403
13	K46WDEPC	0.91221	0.89822	0.73066	0.78175	0.73066	0.73066	0.73066	0.88617	0.89168	0.89520	0.89717	0.90578
14	K50WDEPC	0.93400	0.84414	0.75301	0.80674	0.75301	0.75301	0.75301	0.80887	0.82207	0.83333	0.85081	0.94254
15	KGTWDEPC	0.93400	0.84414	0.75301	0.80674	0.75301	0.75301	0.75301	0.80887	0.82207	0.83333	0.85081	0.94254

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR WIDE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_WDADJ	FB_WDADJ	MA_WDADJ	AP_WDADJ	MY_WDADJ	JN_WDADJ	JL_WDADJ	AU_WDADJ	SP_WDADJ	OC_WDADJ	NO_WDADJ	DE_WDADJ
1	0.75745	0.61491	0.26826	0.29754	0.26826	0.26826	0.26826	0.56827	0.58341	0.59788	0.62743	0.71543
2	0.81811	0.62388	0.30351	0.33603	0.30351	0.30351	0.30351	0.55902	0.57960	0.60022	0.64293	0.78545
3	0.82675	0.66043	0.35540	0.38992	0.35540	0.35540	0.35540	0.57521	0.60237	0.62959	0.68713	0.79524
4	0.83407	0.68584	0.37909	0.41310	0.37909	0.37909	0.37909	0.59522	0.62420	0.65339	0.71487	0.79896
5	0.80056	0.72046	0.41802	0.45224	0.41802	0.41802	0.41802	0.61866	0.65126	0.68432	0.75390	0.76177
6	0.77693	0.77124	0.45099	0.48464	0.45099	0.45099	0.45099	0.66577	0.69980	0.73438	0.80640	0.73104
7	0.84147	0.77244	0.44167	0.46046	0.44167	0.44167	0.44167	0.70528	0.72903	0.75306	0.79670	0.77146
8	0.50880	0.84555	0.39349	0.40949	0.39349	0.39349	0.39349	0.80870	0.82267	0.83623	0.84866	0.43344
9	0.35245	0.73314	0.39605	0.41427	0.39605	0.39605	0.39605	0.86963	0.82679	0.78189	0.68442	0.28330
10	0.32771	0.70131	0.46830	0.49382	0.46830	0.46830	0.46830	0.83405	0.79265	0.74873	0.65249	0.25755
11	0.15216	0.51440	0.51360	0.55417	0.51360	0.51360	0.51360	0.64659	0.60475	0.56019	0.46440	0.08286
12	0.13503	0.49869	0.62123	0.67184	0.62123	0.62123	0.62123	0.61693	0.58066	0.54076	0.45119	0.05541
13	0.06873	0.44770	0.70755	0.76090	0.70755	0.70755	0.70755	0.56337	0.52862	0.48982	0.40041	-0.01778
14	0.03543	0.39611	0.74336	0.80049	0.74336	0.74336	0.74336	0.49277	0.46487	0.43244	0.35403	-0.05550
15	0.03543	0.39611	0.74336	0.80049	0.74336	0.74336	0.74336	0.49277	0.46487	0.43244	0.35403	-0.05550

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DIVIDED CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K06DVEPC	0.41144	0.25318	0.22555	0.23609	0.22555	0.22555	0.22555	0.09749	0.15262	0.19717	0.26230	0.44086
2	K08DVEPC	0.73819	0.57286	0.19125	0.18815	0.19125	0.19125	0.19125	0.42165	0.48519	0.53449	0.60278	0.75860
3	K10DVEPC	0.85795	0.75548	0.37813	0.36937	0.37813	0.37813	0.37813	0.63991	0.69119	0.72843	0.77502	0.87575
4	K12DVEPC	0.85001	0.72656	0.26799	0.25902	0.26799	0.26799	0.26799	0.59604	0.65279	0.69503	0.75006	0.86654
5	K14DVEPC	0.92480	0.86107	0.35154	0.33605	0.35154	0.35154	0.35154	0.76991	0.81212	0.84121	0.87436	0.93890
6	K16DVEPC	0.91229	0.89381	0.52782	0.51183	0.52782	0.52782	0.52782	0.84021	0.86729	0.88403	0.89881	0.92988
7	K20DVEPC	0.68291	0.80116	0.73428	0.71631	0.73428	0.73428	0.73428	0.85747	0.84101	0.82148	0.78116	0.69605
8	K24DVEPC	0.55845	0.70408	0.75394	0.73686	0.75394	0.75394	0.75394	0.79203	0.76174	0.73200	0.67839	0.57424
9	K28DVEPC	0.44410	0.58628	0.80263	0.78855	0.80263	0.80263	0.80263	0.68930	0.65079	0.61652	0.55958	0.46997
10	K32DVEPC	0.37089	0.48973	0.86219	0.85458	0.86219	0.86219	0.86219	0.57911	0.54527	0.51563	0.46700	0.39514
11	K36DVEPC	0.37216	0.48866	0.84944	0.84182	0.84944	0.84944	0.84944	0.57205	0.53953	0.51199	0.46881	0.38304
12	K40DVEPC	0.37163	0.48320	0.84951	0.84255	0.84951	0.84951	0.84951	0.56065	0.53014	0.50459	0.46522	0.37688
13	K46DVEPC	0.27197	0.37418	0.82197	0.81893	0.82197	0.82197	0.82197	0.44628	0.41710	0.39343	0.35846	0.27051
14	K50DVEPC	0.25736	0.36417	0.77181	0.76792	0.77181	0.77181	0.77181	0.44019	0.40921	0.38429	0.34787	0.25427
15	KGTDVEPC	0.25736	0.36417	0.77181	0.76792	0.77181	0.77181	0.77181	0.44019	0.40921	0.38429	0.34787	0.25427

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DIVIDED CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVAD_	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.25158	0.13203	0.07492	0.07906	0.07492	0.07492	0.07692	0.05346	0.08457	0.11043	0.15015	0.27024
2	0.45138	0.32435	0.06353	0.06300	0.06353	0.06353	0.06353	0.23120	0.26887	0.29957	0.34504	0.46501
3	0.58992	0.48100	0.14124	0.13909	0.14124	0.14124	0.14124	0.39455	0.43071	0.45879	0.49887	0.60365
4	0.70505	0.55803	0.12075	0.11766	0.12075	0.12075	0.12075	0.44333	0.49071	0.52808	0.58243	0.72054
5	0.76642	0.66135	0.15840	0.15265	0.15840	0.15840	0.15840	0.57266	0.61048	0.63914	0.67893	0.78071
6	0.79730	0.72331	0.25058	0.24497	0.25058	0.25058	0.25058	0.65846	0.68692	0.70771	0.73535	0.81468
7	0.67177	0.75395	0.40539	0.39868	0.40539	0.40539	0.40539	0.78146	0.77461	0.76476	0.74320	0.68294
8	0.51014	0.69981	0.44499	0.43845	0.44499	0.44499	0.44499	0.77166	0.75005	0.72852	0.66678	0.52302
9	0.38461	0.55696	0.49442	0.48970	0.49442	0.49442	0.49442	0.67769	0.63278	0.59265	0.52514	0.40569
10	0.27831	0.41278	0.58529	0.58483	0.58529	0.58529	0.58529	0.50928	0.47303	0.44104	0.38769	0.29528
11	0.25902	0.38728	0.60172	0.60117	0.60172	0.60172	0.60172	0.47519	0.44146	0.41242	0.36533	0.26536
12	0.23698	0.35685	0.62869	0.62861	0.62869	0.62869	0.62869	0.43639	0.40575	0.37950	0.33713	0.23905
13	0.17343	0.27634	0.60831	0.61098	0.60831	0.60831	0.60831	0.34737	0.31926	0.29590	0.25976	0.17158
14	0.16411	0.26895	0.57119	0.57293	0.57119	0.57119	0.57119	0.34263	0.31320	0.28902	0.25209	0.16128
15	0.16411	0.26895	0.57119	0.57293	0.57119	0.57119	0.57119	0.34263	0.31320	0.28902	0.25209	0.16128

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NARROW CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K06NVEPC	-0.18393	-0.26223	-0.24284	-0.24440	-0.24284	-0.24284	-0.24284	-0.27580	-0.27005	-0.26537	-0.25904	-0.17173
2	K08NVEPC	-0.10723	-0.20468	-0.27692	-0.27819	-0.27692	-0.27692	-0.27692	-0.22952	-0.22009	-0.21169	-0.19733	-0.02669
3	K10NVEPC	0.17102	-0.00571	-0.30350	-0.30550	-0.30350	-0.30350	-0.30350	-0.06810	-0.04695	-0.02617	0.01517	0.29738
4	K12NVEPC	0.39952	0.17316	-0.29108	-0.29314	-0.29108	-0.29108	-0.29108	0.08393	0.11321	0.14282	0.20358	0.51628
5	K14NVEPC	0.55494	0.33063	-0.31495	-0.31398	-0.31495	-0.31495	-0.31495	0.22323	0.25933	0.29490	0.36586	0.66397
6	K16NVEPC	0.76637	0.54292	-0.29412	-0.28852	-0.29412	-0.29412	-0.29412	0.42613	0.46589	0.50445	0.57975	0.86263
7	K20NVEPC	0.80292	0.96211	0.13822	0.17321	0.13822	0.13822	0.13822	0.94730	0.95474	0.95895	0.96227	0.74853
8	K24NVEPC	0.64840	0.90982	0.41817	0.45443	0.41817	0.41817	0.41817	0.94470	0.93269	0.92039	0.89699	0.57109
9	K28NVEPC	0.47685	0.82228	0.61052	0.64594	0.61052	0.61052	0.61052	0.89280	0.86746	0.84361	0.79965	0.39165
10	K32NVEPC	0.42252	0.80407	0.61828	0.65487	0.61828	0.61828	0.61828	0.88132	0.85430	0.82824	0.77877	0.33346
11	K36NVEPC	0.27356	0.70904	0.67931	0.71544	0.67931	0.67931	0.67931	0.80486	0.77141	0.73923	0.67832	0.18319
12	K40NVEPC	0.19581	0.60656	0.72903	0.76151	0.72903	0.72903	0.72903	0.71166	0.67314	0.63766	0.57517	0.10946
13	K46NVEPC	0.14007	0.33826	0.94188	0.95034	0.94188	0.94188	0.94188	0.44754	0.40080	0.36485	0.31270	0.08489
14	K50NVEPC	0.09383	0.26032	0.96549	0.96761	0.96549	0.96549	0.96549	0.37027	0.32223	0.28565	0.23628	0.04382
15	KGTNVEPC	0.09383	0.26032	0.96549	0.96761	0.96549	0.96549	0.96549	0.37027	0.32223	0.28565	0.23628	0.04382

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NARROW CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_NVADJ	FB_NVADJ	MA_NVADJ	AP_NVADJ	MY_NVADJ	JN_NVADJ	JL_NVADJ	AU_NVADJ	SP_NVADJ	OC_NVADJ	NO_NVADJ	DE_NVADJ
1	-0.15098	-0.21801	-0.23696	-0.23849	-0.23696	-0.23696	-0.23696	-0.23306	-0.22698	-0.22184	-0.21416	-0.14097
2	-0.08802	-0.17017	-0.27022	-0.27146	-0.27022	-0.27022	-0.27022	-0.19395	-0.18499	-0.17696	-0.16314	-0.02191
3	0.14039	-0.00475	-0.29616	-0.29811	-0.29616	-0.29616	-0.29616	-0.05755	-0.03946	-0.02188	0.01255	0.24412
4	0.32041	0.14072	-0.27926	-0.28123	-0.27926	-0.27926	-0.27926	0.06937	0.09305	0.11673	0.16447	0.41405
5	0.44506	0.26868	-0.30215	-0.30123	-0.30215	-0.30215	-0.30215	0.18450	0.21315	0.24101	0.29558	0.53250
6	0.61462	0.44119	-0.28217	-0.27680	-0.28217	-0.28217	-0.28217	0.35220	0.38292	0.41228	0.46840	0.69182
7	0.62476	0.75906	0.12974	0.16258	0.12974	0.12974	0.12974	0.76079	0.76230	0.76113	0.75457	0.58244
8	0.44388	0.63346	0.35854	0.38963	0.35854	0.35854	0.35854	0.67215	0.65891	0.64554	0.61990	0.39096
9	0.29655	0.52143	0.49021	0.51865	0.49021	0.49021	0.49021	0.58041	0.55935	0.53948	0.50275	0.24356
10	0.24468	0.47578	0.47346	0.50148	0.47346	0.47346	0.47346	0.53601	0.51492	0.49467	0.45647	0.19311
11	0.15488	0.41046	0.51257	0.53983	0.51257	0.51257	0.51257	0.47931	0.45515	0.43206	0.38886	0.10372
12	0.10015	0.31824	0.51543	0.53839	0.51543	0.51543	0.51543	0.38565	0.36094	0.33825	0.29841	0.05598
13	0.03484	0.08940	0.45099	0.45505	0.45099	0.45099	0.45099	0.12737	0.11138	0.09892	0.08050	0.02112
14	0.02334	0.06880	0.46230	0.46331	0.46230	0.46230	0.46230	0.10538	0.08954	0.07745	0.06082	0.01090
15	0.02334	0.06880	0.46230	0.46331	0.46230	0.46230	0.46230	0.10538	0.08954	0.07745	0.06082	0.01090

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR TRANSITIONAL CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K06TVEPC	0.70100	0.68316	0.17377	0.18785	0.17377	0.17377	0.17377	0.59718	0.62982	0.65823	0.70517	0.69656
2	K08TVEPC	0.81935	0.77557	0.34413	0.35781	0.34413	0.34413	0.34413	0.70986	0.73519	0.75686	0.79180	0.81813
3	K10TVEPC	0.89208	0.76910	0.42292	0.43464	0.42292	0.42292	0.42292	0.71948	0.73877	0.75512	0.78111	0.89108
4	K12TVEPC	0.92622	0.58233	0.34652	0.35476	0.34652	0.34652	0.34652	0.54966	0.56240	0.57316	0.59019	0.91923
5	K14TVEPC	0.92898	0.59004	0.38331	0.39073	0.38331	0.38331	0.38331	0.56257	0.57536	0.58240	0.59652	0.92318
6	K16TVEPC	0.86661	0.38837	0.19943	0.20584	0.19943	0.19943	0.19943	0.36690	0.37150	0.38055	0.39515	0.85399
7	K20TVEPC	0.72124	0.92852	0.49552	0.51111	0.49552	0.49552	0.49552	0.87222	0.89466	0.91317	0.94130	0.73012
8	K24TVEPC	0.73595	0.96826	0.63910	0.65260	0.63910	0.63910	0.63910	0.93227	0.94711	0.95889	0.97568	0.74928
9	K28TVEPC	0.72927	0.98033	0.76108	0.77203	0.76108	0.76108	0.76108	0.96853	0.97447	0.97824	0.98111	0.74661
10	K32TVEPC	0.68639	0.95177	0.84352	0.85088	0.84352	0.84352	0.84352	0.95920	0.95786	0.95527	0.94757	0.70695
11	K36TVEPC	0.64063	0.90960	0.89852	0.90313	0.89852	0.89852	0.89852	0.93578	0.92745	0.91866	0.90040	0.66347
12	K40TVEPC	0.63974	0.90854	0.90219	0.90670	0.90219	0.90219	0.90219	0.93511	0.92661	0.91769	0.89928	0.66268
13	K46TVEPC	0.55671	0.83217	0.92478	0.92539	0.92478	0.92478	0.92478	0.87167	0.85807	0.84490	0.81987	0.58155
14	K50TVEPC	0.50897	0.78520	0.92461	0.92538	0.92461	0.92461	0.92461	0.83196	0.81558	0.80001	0.77106	0.53450
15	KGTTVEPC	0.50897	0.78520	0.92461	0.92538	0.92461	0.92461	0.92461	0.83196	0.81558	0.80001	0.77106	0.53450

GAVINS TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR TRANSITIONAL CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.29203	0.24296	0.05222	0.05669	0.05222	0.05222	0.05222	0.20703	0.22019	0.23209	0.25296	0.30662
2	0.36837	0.29766	0.11160	0.11653	0.11160	0.11160	0.11160	0.26559	0.27739	0.28801	0.30653	0.38866
3	0.43132	0.31745	0.14750	0.15223	0.14750	0.14750	0.14750	0.28949	0.29977	0.30902	0.32521	0.45525
4	0.48730	0.26155	0.13151	0.13520	0.13151	0.13151	0.13151	0.24066	0.24832	0.25523	0.26738	0.51103
5	0.50749	0.27517	0.15104	0.15462	0.15104	0.15104	0.15104	0.25575	0.26286	0.26929	0.28060	0.53290
6	0.54689	0.20923	0.09078	0.09410	0.09078	0.09078	0.09078	0.18954	0.19675	0.20327	0.21473	0.56947
7	0.47102	0.51766	0.23343	0.24179	0.23343	0.23343	0.23343	0.47403	0.49034	0.50476	0.52934	0.50384
8	0.49142	0.55194	0.30782	0.31565	0.30782	0.30782	0.30782	0.51805	0.53075	0.54193	0.56099	0.52867
9	0.50568	0.58030	0.38067	0.38778	0.38067	0.38067	0.38067	0.55888	0.56707	0.57412	0.58580	0.54704
10	0.49639	0.58759	0.44003	0.44575	0.44003	0.44003	0.44003	0.57728	0.58135	0.58472	0.59008	0.54022
11	0.49089	0.59501	0.49664	0.50130	0.49664	0.49664	0.49664	0.59673	0.59642	0.59581	0.59411	0.53720
12	0.53419	0.64764	0.54340	0.54843	0.54340	0.54340	0.54340	0.64980	0.64934	0.64858	0.64660	0.58470
13	0.49369	0.62999	0.59156	0.59445	0.59156	0.59156	0.59156	0.64328	0.63860	0.63417	0.62607	0.54494
14	0.46815	0.61655	0.61345	0.61523	0.61345	0.61345	0.61345	0.63682	0.62957	0.62282	0.61070	0.51949
15	0.46815	0.61655	0.61345	0.61523	0.61345	0.61345	0.61345	0.63682	0.62957	0.62282	0.61070	0.51949

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR WIDE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_WVEPC	FB_WVEPC	MA_WVEPC	AP_WVEPC	MY_WVEPC	JN_WVEPC	JL_WVEPC	AU_WVEPC	SP_WVEPC	OC_WVEPC	NO_WVEPC	DE_WVEPC
1	K06WVEPC	0.26729	0.35606	0.12328	0.12664	0.12328	0.12328	0.12328	0.34256	0.34733	0.35184	0.36001	0.24031
2	K08WVEPC	0.46203	0.53047	0.24969	0.25512	0.24969	0.24969	0.24969	0.52835	0.52947	0.53019	0.53033	0.44760
3	K10WVEPC	0.61985	0.67032	0.40744	0.41298	0.40744	0.40744	0.40744	0.66672	0.66843	0.66964	0.67049	0.60870
4	K12WVEPC	0.75434	0.78665	0.53006	0.53562	0.53006	0.53006	0.53006	0.78883	0.78870	0.78798	0.78471	0.75167
5	K14WVEPC	0.78376	0.81862	0.58805	0.59276	0.58805	0.58805	0.58805	0.81505	0.81685	0.81805	0.81858	0.77648
6	K16WVEPC	0.84581	0.87812	0.67736	0.68145	0.67736	0.67736	0.67736	0.87182	0.87456	0.87667	0.87892	0.83674
7	K20WVEPC	0.86481	0.89574	0.70742	0.71127	0.70742	0.70742	0.70742	0.88835	0.89146	0.89394	0.89688	0.85503
8	K24WVEPC	0.81386	0.85613	0.73461	0.73697	0.73461	0.73461	0.73461	0.83244	0.84092	0.84883	0.86281	0.78928
9	K28WVEPC	0.85844	0.89575	0.72281	0.72632	0.72281	0.72281	0.72281	0.88458	0.88895	0.89268	0.89816	0.84411
10	K32WVEPC	0.92423	0.95191	0.78204	0.78615	0.78204	0.78204	0.78204	0.94827	0.95017	0.95140	0.95172	0.91625
11	K36WVEPC	0.96280	0.98299	0.89833	0.90173	0.89833	0.89833	0.89833	0.97286	0.97692	0.98031	0.98496	0.94905
12	K40WVEPC	0.96136	0.97514	0.93758	0.94174	0.93758	0.93758	0.93758	0.96487	0.96896	0.97240	0.97720	0.94615
13	K46WVEPC	0.88732	0.89990	0.94749	0.95139	0.94749	0.94749	0.94749	0.88315	0.88932	0.89491	0.90426	0.86377
14	K50WVEPC	0.85541	0.86581	0.94048	0.94164	0.94048	0.94048	0.94048	0.84946	0.85547	0.86092	0.87009	0.83108
15	KGTWVEPC	0.85541	0.86581	0.94048	0.94164	0.94048	0.94048	0.94048	0.84946	0.85547	0.86092	0.87009	0.83108

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR WIDE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_WVADJ	FB_WVADJ	MA_WVADJ	AP_WVADJ	MY_WVADJ	JN_WVADJ	JL_WVADJ	AU_WVADJ	SP_WVADJ	OC_WVADJ	NO_WVADJ	DE_WVADJ
1	0.26528	0.27988	0.06250	0.06453	0.06250	0.06250	0.06250	0.24465	0.25586	0.26759	0.29281	0.22656
2	0.45015	0.42450	0.12886	0.13234	0.12886	0.12886	0.12886	0.38415	0.39707	0.41051	0.43913	0.41343
3	0.56912	0.56577	0.22178	0.22594	0.22178	0.22178	0.22178	0.51128	0.52870	0.54685	0.58555	0.52639
4	0.68280	0.67192	0.29198	0.29656	0.29198	0.29198	0.29198	0.61218	0.63132	0.65122	0.69353	0.63978
5	0.66871	0.73242	0.33930	0.34377	0.33930	0.33930	0.33930	0.66255	0.68489	0.70815	0.75780	0.61856
6	0.69177	0.80986	0.40287	0.40738	0.40287	0.40287	0.40287	0.73053	0.75587	0.78228	0.83874	0.63554
7	0.83043	0.72662	0.37008	0.37400	0.37008	0.37008	0.37008	0.65473	0.67768	0.70161	0.75279	0.77717
8	0.61404	0.83192	0.46035	0.46420	0.46035	0.46035	0.46035	0.73494	0.76577	0.79806	0.85811	0.54699
9	0.48665	0.78998	0.52118	0.52639	0.52118	0.52118	0.52118	0.87057	0.84648	0.81967	0.75725	0.41883
10	0.42886	0.76311	0.60437	0.61066	0.60437	0.60437	0.60437	0.86409	0.83331	0.79970	0.72337	0.35571
11	0.19711	0.58918	0.81143	0.81868	0.81143	0.81143	0.81143	0.70770	0.67157	0.63214	0.54247	0.11022
12	0.14986	0.54731	0.86993	0.87826	0.86993	0.86993	0.86993	0.66848	0.63150	0.59118	0.49967	0.06139
13	0.06685	0.44854	0.91751	0.92601	0.91751	0.91751	0.91751	0.56144	0.52722	0.48966	0.40358	-0.01696
14	0.03245	0.40627	0.92843	0.93434	0.92843	0.92843	0.92843	0.51750	0.48376	0.44676	0.36205	-0.04894
15	0.03245	0.40627	0.92843	0.93434	0.92843	0.92843	0.92843	0.51750	0.48376	0.44676	0.36205	-0.04894

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR DIVIDED CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K04DDEPC	0.92792	0.83857	0.56556	0.40092	0.54971	0.53613	0.44314	0.80254	0.83837	0.80254	0.83837	0.91044
2	K08DDEPC	0.82807	0.92051	0.45224	0.56586	0.45433	0.36290	0.57122	0.91109	0.92051	0.91109	0.92051	0.77962
3	K10DDEPC	0.89223	0.95470	0.55081	0.60701	0.54939	0.46792	0.62024	0.94207	0.95470	0.94207	0.95470	0.85185
4	K12DDEPC	0.93808	0.97366	0.64257	0.64651	0.63839	0.56611	0.66690	0.95877	0.97366	0.95877	0.97366	0.90594
5	K14DDEPC	0.94951	0.98013	0.68127	0.67270	0.67675	0.60521	0.69488	0.96557	0.98013	0.96557	0.98013	0.92033
6	K16DDEPC	0.91980	0.98878	0.65406	0.70591	0.65365	0.56556	0.72011	0.98007	0.98878	0.98007	0.98878	0.88434
7	K20DDEPC	0.96838	0.96038	0.83562	0.74801	0.82958	0.77209	0.78217	0.94510	0.96038	0.94510	0.96038	0.95477
8	K24DDEPC	0.88755	0.97596	0.80578	0.86810	0.81194	0.70963	0.88422	0.97678	0.97596	0.97678	0.97596	0.86015
9	K28DDEPC	0.89455	0.96733	0.83356	0.86841	0.83872	0.74307	0.88869	0.96649	0.96733	0.96649	0.96733	0.87087
10	K32DDEPC	0.92228	0.96331	0.85266	0.83706	0.85403	0.77256	0.86366	0.95744	0.96331	0.95744	0.96331	0.90361
11	K36DDEPC	0.83815	0.95767	0.80307	0.91253	0.81446	0.69774	0.92371	0.96477	0.95767	0.96477	0.95767	0.80773
12	K40DDEPC	0.76313	0.92465	0.77589	0.95090	0.79396	0.66030	0.95463	0.93972	0.92465	0.93972	0.92465	0.72772
13	K46DDEPC	0.67621	0.87499	0.73968	0.97314	0.76424	0.61729	0.97032	0.89747	0.87499	0.89747	0.87499	0.63659
14	K50DDEPC	0.62148	0.83200	0.73529	0.98467	0.76296	0.61203	0.98040	0.85817	0.83200	0.85817	0.83200	0.58260
15	K6TDDEPC	0.62148	0.83200	0.73529	0.98467	0.76296	0.61203	0.98040	0.85817	0.83200	0.85817	0.83200	0.58260

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DIVIDED CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.68918	0.51563	0.26747	0.22056	0.23594	0.17809	0.22640	0.49194	0.51563	0.49194	0.51563	0.72565
2	0.61502	0.56615	0.19788	0.31131	0.19501	0.12054	0.29183	0.55848	0.56615	0.55848	0.56615	0.62138
3	0.74517	0.66028	0.27102	0.37551	0.26517	0.17478	0.35633	0.64936	0.66028	0.64936	0.66028	0.76348
4	0.93104	0.81233	0.38141	0.48247	0.37169	0.25509	0.46218	0.79723	0.81233	0.79723	0.81233	0.83239
5	0.94238	0.81773	0.40438	0.50202	0.39403	0.27270	0.48157	0.80289	0.81773	0.80289	0.81773	0.84561
6	0.86319	0.86919	0.40905	0.55506	0.40099	0.26851	0.52582	0.85866	0.86919	0.85866	0.86919	0.76127
7	0.74133	0.93901	0.60772	0.68397	0.59182	0.42627	0.66418	0.92730	0.93901	0.92730	0.93901	0.64471
8	0.60378	0.88534	0.62649	0.84860	0.61924	0.41884	0.80269	0.88966	0.88534	0.88966	0.88534	0.50212
9	0.55698	0.83134	0.67640	0.85084	0.66760	0.45774	0.84199	0.83431	0.83134	0.83431	0.83134	0.45451
10	0.44467	0.71581	0.76248	0.73301	0.74913	0.52445	0.82558	0.71547	0.71581	0.71547	0.71581	0.33536
11	0.34875	0.65924	0.74938	0.75446	0.74550	0.49426	0.84102	0.66836	0.65924	0.66836	0.65924	0.24253
12	0.26347	0.58226	0.75641	0.73628	0.75925	0.48866	0.82265	0.59606	0.58226	0.59606	0.58226	0.16318
13	0.23346	0.55099	0.72110	0.75350	0.73083	0.45684	0.83617	0.56926	0.55099	0.56926	0.55099	0.14274
14	0.21456	0.52392	0.71682	0.76243	0.72960	0.45294	0.84485	0.54433	0.52392	0.54433	0.52392	0.13063
15	0.21456	0.52392	0.71682	0.76243	0.72960	0.45294	0.84485	0.54433	0.52392	0.54433	0.52392	0.13063

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR NARROW CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K06NDEPC	0.89976	0.87640	-0.19488	0.67239	0.92758	-0.40431	-0.15600	0.85605	0.87640	0.85605	0.87640	0.85622
2	K08NDEPC	0.83000	0.92331	-0.16756	0.45306	0.77601	-0.33476	-0.10362	0.91535	0.92331	0.91535	0.92331	0.76387
3	K10NDEPC	0.81084	0.93960	-0.14979	0.40010	0.72318	-0.31581	-0.06812	0.93611	0.93960	0.93611	0.93960	0.73940
4	K12NDEPC	0.71208	0.93511	-0.07936	0.23533	0.54625	-0.23584	0.05106	0.94448	0.93511	0.94448	0.93511	0.62857
5	K14NDEPC	0.57035	0.87011	0.01520	0.07550	0.34764	-0.13509	0.19586	0.89171	0.87011	0.89171	0.87011	0.48085
6	K16NDEPC	0.52238	0.84417	0.11187	0.04563	0.29204	-0.07760	0.31624	0.87028	0.84417	0.87028	0.84417	0.43245
7	K20NDEPC	0.80336	0.81176	0.08959	0.40300	0.53950	-0.31994	0.18680	0.80704	0.81176	0.80704	0.81176	0.79527
8	K24NDEPC	0.76650	0.77967	0.11193	0.36685	0.49820	-0.28418	0.20385	0.77629	0.77967	0.77629	0.77967	0.75999
9	K28NDEPC	0.72380	0.77944	0.18092	0.31713	0.45597	-0.19135	0.27169	0.78115	0.77944	0.78115	0.77944	0.70845
10	K32NDEPC	0.63993	0.76682	0.29462	0.23481	0.38328	-0.02671	0.38026	0.77703	0.76682	0.77703	0.76682	0.60899
11	K36NDEPC	0.50890	0.71568	0.42077	0.12929	0.28128	0.17826	0.49412	0.73562	0.71568	0.73562	0.71568	0.46021
12	K40NDEPC	0.29150	0.55244	0.52770	-0.01979	0.11228	0.43172	0.56466	0.58056	0.55244	0.58056	0.55244	0.23446
13	K46NDEPC	0.42911	0.48801	0.24967	0.08814	0.18133	0.05070	0.28883	0.49490	0.48801	0.49490	0.48801	0.42775
14	K50NDEPC	0.37685	0.50221	0.34822	0.03998	0.14624	0.20237	0.38271	0.51640	0.50221	0.51640	0.50221	0.35862
15	K6TNDEPC	0.37685	0.50221	0.34822	0.03998	0.14624	0.20237	0.38271	0.51640	0.50221	0.51640	0.50221	0.35862

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR NARROW CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.71265	0.71840	-0.17770	0.57045	0.85272	-0.39453	-0.13505	0.70273	0.71840	0.70273	0.71840	0.66859
2	0.65740	0.75685	-0.15279	0.38438	0.71338	-0.32666	-0.08971	0.75141	0.75685	0.75141	0.75685	0.59648
3	0.64222	0.77021	-0.13659	0.33944	0.66481	-0.30816	-0.05897	0.76845	0.77021	0.76845	0.77021	0.57737
4	0.55021	0.74884	-0.07098	0.19531	0.49269	-0.22626	0.04328	0.75746	0.74884	0.75746	0.74884	0.47854
5	0.44070	0.69678	0.01360	0.06266	0.31356	-0.12960	0.16601	0.71514	0.69678	0.71514	0.69678	0.36608
6	0.40363	0.67601	0.10006	0.03787	0.26341	-0.07445	0.26804	0.69796	0.67601	0.69796	0.67601	0.32923
7	0.60109	0.63065	0.07816	0.32506	0.47480	-0.30030	0.15404	0.62796	0.63065	0.62796	0.63065	0.58582
8	0.50006	0.53272	0.08798	0.26239	0.39574	-0.24366	0.14976	0.53143	0.53272	0.53143	0.53272	0.48633
9	0.42572	0.48365	0.13174	0.20741	0.33600	-0.15364	0.18321	0.48579	0.48365	0.48579	0.48365	0.40743
10	0.34834	0.44298	0.20291	0.14376	0.26741	-0.02045	0.24077	0.44998	0.44298	0.44998	0.44298	0.32329
11	0.27027	0.40418	0.28476	0.07752	0.19291	0.13450	0.30671	0.41649	0.40418	0.41649	0.40418	0.23815
12	0.13847	0.28172	0.33048	-0.01081	0.07137	0.30523	0.32077	0.29693	0.28172	0.29693	0.28172	0.10806
13	0.08836	0.12054	0.09583	0.02552	0.07161	0.02428	0.09109	0.12311	0.12054	0.12311	0.12054	0.08097
14	0.07760	0.12405	0.13366	0.01158	0.05775	0.09690	0.12070	0.12846	0.12405	0.12846	0.12405	0.06789
15	0.07760	0.12405	0.13366	0.01158	0.05775	0.09690	0.12070	0.12846	0.12405	0.12846	0.12405	0.06789

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR TRANSITIONAL CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K06TDEPC	0.69008	0.89832	0.81487	0.89720	0.80651	0.52785	0.86805	0.91844	0.89832	0.91844	0.89832	0.63026
2	K08TDEPC	0.59456	0.82610	0.84967	0.90810	0.84817	0.59436	0.88833	0.85523	0.82610	0.85523	0.82610	0.53433
3	K10TDEPC	0.53829	0.76746	0.83244	0.87893	0.83759	0.59915	0.86339	0.80284	0.76746	0.80284	0.76746	0.48125
4	K12TDEPC	0.47869	0.68744	0.77477	0.80631	0.79469	0.58744	0.79515	0.73140	0.68744	0.73140	0.68744	0.42749
5	K14TDEPC	0.47520	0.69040	0.83497	0.85175	0.85433	0.67177	0.84684	0.73187	0.69040	0.73187	0.69040	0.42394
6	K16TDEPC	0.49702	0.65876	0.70180	0.73051	0.73751	0.56599	0.71847	0.70453	0.65876	0.70453	0.65876	0.45624
7	K20TDEPC	0.43232	0.61524	0.93171	0.89089	0.94528	0.95029	0.90610	0.63324	0.61524	0.63324	0.61524	0.39555
8	K24TDEPC	0.33179	0.51441	0.91667	0.85124	0.92085	0.97484	0.87615	0.52430	0.51441	0.52430	0.51441	0.29862
9	K28TDEPC	0.30039	0.47858	0.89347	0.82376	0.90114	0.97574	0.85066	0.48827	0.47858	0.48827	0.47858	0.26891
10	K32TDEPC	0.34241	0.51184	0.86189	0.80439	0.88210	0.94617	0.82440	0.53120	0.51184	0.53120	0.51184	0.31031
11	K36TDEPC	0.24187	0.39887	0.79129	0.71670	0.81124	0.93093	0.74272	0.41455	0.39887	0.41455	0.39887	0.21461
12	K40TDEPC	0.23884	0.38438	0.70758	0.64534	0.73996	0.84846	0.66457	0.41028	0.38438	0.41028	0.38438	0.21168
13	K46TDEPC	0.21689	0.34537	0.59791	0.54812	0.63846	0.73563	0.56115	0.37795	0.34537	0.37795	0.34537	0.19137
14	K50TDEPC	0.18102	0.30273	0.54218	0.49296	0.58499	0.68797	0.50532	0.33683	0.30273	0.33683	0.30273	0.15676
15	KGTTDEPC	0.18102	0.30273	0.54218	0.49296	0.58499	0.68797	0.50532	0.33683	0.30273	0.33683	0.30273	0.15676

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR TRANSITIONAL CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.37383	0.40117	0.26721	0.30357	0.25531	0.15862	0.28967	0.40429	0.40117	0.40429	0.40117	0.36100
2	0.34760	0.39814	0.30070	0.33160	0.28976	0.19275	0.31991	0.40629	0.39814	0.40629	0.39814	0.33030
3	0.33844	0.39777	0.31682	0.34516	0.30773	0.20896	0.33439	0.41017	0.39777	0.41017	0.39777	0.31992
4	0.32750	0.38771	0.32087	0.34456	0.31771	0.22294	0.33511	0.40661	0.38771	0.40661	0.38771	0.30924
5	0.33757	0.40430	0.35905	0.37792	0.35465	0.26471	0.37057	0.42247	0.40430	0.42247	0.40430	0.31842
6	0.40786	0.44565	0.34862	0.37443	0.35367	0.25764	0.36319	0.46980	0.44565	0.46980	0.44565	0.39586
7	0.36714	0.43071	0.47896	0.47255	0.46910	0.44766	0.47401	0.43698	0.43071	0.43698	0.43071	0.35517
8	0.28809	0.36821	0.48076	0.46166	0.46724	0.46954	0.46863	0.36993	0.36821	0.36993	0.36821	0.27616
9	0.27085	0.35573	0.48767	0.46393	0.47481	0.48803	0.47249	0.35775	0.35573	0.35775	0.35573	0.25637
10	0.32200	0.39680	0.49064	0.47248	0.48475	0.49357	0.47757	0.40592	0.39680	0.40592	0.39680	0.30855
11	0.24101	0.32764	0.47728	0.44606	0.47237	0.51455	0.45588	0.33566	0.32764	0.33566	0.32764	0.20312
12	0.21835	0.34406	0.46508	0.43768	0.46951	0.51104	0.44451	0.36200	0.34406	0.36200	0.34406	0.18034
13	0.18367	0.32831	0.41737	0.39479	0.43023	0.47056	0.39861	0.35416	0.32831	0.35416	0.32831	0.14940
14	0.14553	0.29849	0.39255	0.36827	0.40887	0.45645	0.37231	0.32737	0.29849	0.32737	0.29849	0.11527
15	0.14553	0.29849	0.39255	0.36827	0.40887	0.45645	0.37231	0.32737	0.29849	0.32737	0.29849	0.11527

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR WIDE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_WDEPC	FB_WDEPC	MA_WDEPC	AP_WDEPC	MY_WDEPC	JN_WDEPC	JL_WDEPC	AU_WDEPC	SP_WDEPC	OC_WDEPC	NO_WDEPC	DE_WDEPC
1	K06WDEPC	0.88839	0.75410	0.85209	0.77906	0.82503	0.52918	0.80294	0.75888	0.75410	0.75888	0.75410	0.90395
2	K08WDEPC	0.95629	0.85114	0.89570	0.74861	0.83326	0.58810	0.78902	0.85037	0.85114	0.85037	0.85114	0.96431
3	K10WDEPC	0.97998	0.92369	0.92096	0.72809	0.83751	0.65293	0.77912	0.91959	0.92369	0.91959	0.92369	0.97574
4	K12WDEPC	0.97708	0.94220	0.93643	0.74594	0.85517	0.68820	0.79715	0.93869	0.94220	0.93869	0.94220	0.96725
5	K14WDEPC	0.96517	0.96024	0.94104	0.74069	0.85672	0.72447	0.79443	0.95626	0.96024	0.95626	0.96024	0.94801
6	K16WDEPC	0.95662	0.96457	0.95883	0.77651	0.88500	0.75825	0.82712	0.96248	0.96457	0.96248	0.96457	0.93595
7	K20WDEPC	0.82124	0.83641	0.97466	0.95976	0.98968	0.84427	0.97616	0.84875	0.83641	0.84875	0.83641	0.79896
8	K24WDEPC	0.65235	0.60503	0.79803	0.91931	0.87507	0.62791	0.90251	0.62543	0.60503	0.62543	0.60503	0.64729
9	K28WDEPC	0.61609	0.54981	0.74173	0.88411	0.82603	0.54928	0.86138	0.57095	0.54981	0.57095	0.54981	0.61623
10	K32WDEPC	0.70854	0.64504	0.81822	0.91222	0.87885	0.60597	0.90074	0.66342	0.64504	0.66342	0.64504	0.70669
11	K36WDEPC	0.79293	0.69951	0.84190	0.87707	0.86982	0.56860	0.87726	0.71341	0.69951	0.71341	0.69951	0.79774
12	K40WDEPC	0.91092	0.84663	0.93823	0.87467	0.91860	0.66954	0.89782	0.85403	0.84663	0.85403	0.84663	0.90743
13	K46WDEPC	0.93404	0.90070	0.97048	0.87106	0.93468	0.73066	0.90323	0.90578	0.90070	0.90578	0.90070	0.92279
14	K50WDEPC	0.94635	0.94324	0.96419	0.79194	0.89234	0.75301	0.84025	0.94254	0.94324	0.94254	0.94324	0.92846
15	KGTWDEPC	0.94635	0.94324	0.96419	0.79194	0.89234	0.75301	0.84025	0.94254	0.94324	0.94254	0.94324	0.92846

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR WIDE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_WDADJ	FB_WDADJ	MA_WDADJ	AP_WDADJ	MY_WDADJ	JN_WDADJ	JL_WDADJ	AU_WDADJ	SP_WDADJ	OC_WDADJ	NO_WDADJ	DE_WDADJ
1	0.68757	0.70313	0.50681	0.51446	0.47058	0.26826	0.50672	0.71543	0.70313	0.71543	0.70313	0.63076
2	0.71896	0.77722	0.54237	0.50328	0.48385	0.30351	0.50692	0.78545	0.77722	0.78545	0.77722	0.65021
3	0.66985	0.78854	0.58817	0.51627	0.51293	0.35540	0.52795	0.79524	0.78854	0.79524	0.78854	0.58715
4	0.65241	0.79137	0.60523	0.53528	0.53003	0.37909	0.54666	0.79896	0.79137	0.79896	0.79137	0.56580
5	0.58343	0.75366	0.63708	0.55673	0.55620	0.41802	0.57064	0.76177	0.75366	0.76177	0.75366	0.49087
6	0.53714	0.72094	0.66912	0.60164	0.59226	0.45099	0.61243	0.73104	0.72094	0.73104	0.72094	0.44189
7	0.60340	0.75133	0.59824	0.65406	0.58254	0.44167	0.63574	0.77146	0.75133	0.77146	0.75133	0.52424
8	0.31596	0.41157	0.58677	0.75048	0.61701	0.39349	0.70409	0.43344	0.41157	0.43344	0.41157	0.25257
9	0.15777	0.26473	0.62751	0.83043	0.67016	0.39605	0.77321	0.28330	0.26473	0.28330	0.26473	0.09105
10	0.09274	0.24026	0.74192	0.90608	0.76419	0.46830	0.86658	0.25755	0.24026	0.25755	0.24026	0.01044
11	-0.14640	0.06836	0.79154	0.72212	0.85562	0.51360	0.76805	0.08286	0.06836	0.08286	0.06836	-0.25555
12	-0.22233	0.03892	0.85506	0.69214	0.87820	0.62123	0.75858	0.05541	0.03892	0.05541	0.03892	-0.34798
13	-0.31952	-0.03546	0.83830	0.64330	0.85096	0.70755	0.71759	-0.01778	-0.03546	-0.01778	-0.03546	-0.44993
14	-0.36681	-0.07452	0.81158	0.56545	0.79352	0.74336	0.64786	-0.05550	-0.07452	-0.05550	-0.07452	-0.49759
15	-0.36681	-0.07452	0.81158	0.56545	0.79352	0.74336	0.64786	-0.05550	-0.07452	-0.05550	-0.07452	-0.49759

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DIVIDED CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K06DVEPC	0.57384	0.50070	0.19160	0.06026	0.19264	0.22555	0.14624	0.44086	0.50070	0.44086	0.50070	0.68460
2	K08DVEPC	0.82963	0.80240	0.25880	0.38023	0.25425	0.19125	0.41753	0.75860	0.80240	0.75860	0.80240	0.83620
3	K10DVEPC	0.91856	0.89705	0.47558	0.60054	0.46711	0.37813	0.63882	0.87575	0.89705	0.87575	0.89705	0.93258
4	K12DVEPC	0.90845	0.89352	0.37441	0.55678	0.36685	0.26799	0.58134	0.86654	0.89352	0.86654	0.89352	0.91623
5	K14DVEPC	0.95706	0.94635	0.50344	0.73749	0.49145	0.35154	0.74866	0.93890	0.94635	0.93890	0.94635	0.96908
6	K16DVEPC	0.94569	0.92749	0.68489	0.81696	0.67133	0.52782	0.85013	0.92988	0.92749	0.92988	0.92749	0.96778
7	K20DVEPC	0.70910	0.65590	0.85592	0.85638	0.84114	0.75428	0.89950	0.69605	0.65590	0.69605	0.65590	0.75415
8	K24DVEPC	0.60302	0.53119	0.86540	0.79990	0.84975	0.75394	0.84982	0.57424	0.53119	0.57424	0.53119	0.65044
9	K28DVEPC	0.47029	0.43838	0.90855	0.69641	0.88965	0.80263	0.76879	0.46997	0.43838	0.46997	0.43838	0.49086
10	K32DVEPC	0.35660	0.37127	0.92306	0.58260	0.90853	0.86219	0.68029	0.39514	0.37127	0.39514	0.37127	0.37333
11	K36DVEPC	0.32649	0.35353	0.92481	0.58455	0.90872	0.86944	0.67883	0.38304	0.35353	0.38304	0.35353	0.33961
12	K40DVEPC	0.31447	0.34591	0.92370	0.57787	0.90929	0.86951	0.67334	0.37688	0.34591	0.37688	0.34591	0.32684
13	K46DVEPC	0.19060	0.24034	0.83730	0.49716	0.84974	0.82197	0.59289	0.27051	0.24034	0.27051	0.24034	0.19426
14	K50DVEPC	0.16613	0.22241	0.78140	0.49420	0.79342	0.77181	0.57461	0.25427	0.22241	0.25427	0.22241	0.16428
15	KGTDVEPC	0.16613	0.22241	0.78140	0.49420	0.79342	0.77181	0.57461	0.25427	0.22241	0.25427	0.22241	0.16428

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DIVIDED CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.42620	0.30795	0.08384	0.03314	0.08268	0.07492	0.07471	0.27024	0.30795	0.27024	0.30795	0.48189
2	0.61618	0.49351	0.11324	0.20918	0.10913	0.06353	0.21331	0.46501	0.49351	0.46501	0.49351	0.66649
3	0.76717	0.62041	0.23401	0.37151	0.22545	0.14124	0.36700	0.60365	0.62041	0.60365	0.62041	0.83584
4	0.90163	0.74547	0.22224	0.41551	0.21359	0.12075	0.40288	0.72054	0.74547	0.72054	0.74547	0.84185
5	0.94988	0.78954	0.29882	0.55037	0.28614	0.15840	0.51884	0.78071	0.78954	0.78071	0.78954	0.89040
6	0.88749	0.81531	0.42833	0.64238	0.41184	0.25058	0.62076	0.81468	0.81531	0.81468	0.81531	0.83309
7	0.54284	0.64131	0.62249	0.78306	0.60006	0.40539	0.76381	0.68294	0.64131	0.68294	0.64131	0.50925
8	0.41022	0.48187	0.67285	0.78194	0.64807	0.44499	0.77146	0.52302	0.48187	0.52302	0.48187	0.37970
9	0.29282	0.37675	0.73709	0.68231	0.70814	0.49442	0.72838	0.40569	0.37675	0.40569	0.37675	0.25619
10	0.17193	0.27588	0.82543	0.51018	0.79694	0.58529	0.65029	0.29528	0.27588	0.29528	0.27588	0.13856
11	0.13585	0.24336	0.86298	0.48329	0.83178	0.60172	0.61806	0.26536	0.24336	0.26536	0.24336	0.10197
12	0.10857	0.21782	0.90050	0.44744	0.86954	0.62869	0.58025	0.23905	0.21782	0.23905	0.21782	0.07329
13	0.06580	0.15134	0.81627	0.38495	0.81258	0.60831	0.51092	0.17158	0.15134	0.17158	0.15134	0.04356
14	0.05736	0.14005	0.76177	0.38265	0.75873	0.57119	0.49517	0.16128	0.14005	0.16128	0.14005	0.03684
15	0.05736	0.14005	0.76177	0.38265	0.75873	0.57119	0.49517	0.16128	0.14005	0.16128	0.14005	0.03684

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NARROW CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K06NVEPC	0.06804	-0.16496	-0.26785	-0.27180	-0.26576	-0.24284	-0.26928	-0.17173	-0.16496	-0.17173	-0.16496	0.14302
2	K08NVEPC	0.43734	-0.02218	-0.27389	-0.27881	-0.28384	-0.27692	-0.28597	-0.02669	-0.02218	-0.02669	-0.02218	0.56058
3	K10NVEPC	0.83271	0.30751	-0.23017	-0.19152	-0.25972	-0.30350	-0.24036	0.29738	0.30751	0.29738	0.30751	0.91944
4	K12NVEPC	0.97555	0.53141	-0.15328	-0.06091	-0.19399	-0.29108	-0.13927	0.51628	0.53141	0.51628	0.53141	0.95263
5	K14NVEPC	0.96606	0.68115	-0.07716	0.07436	-0.12956	-0.31495	-0.02498	0.66397	0.68115	0.66397	0.68115	0.87425
6	K16NVEPC	0.84870	0.87879	0.07815	0.28625	0.01183	-0.29412	0.17185	0.86263	0.87879	0.86263	0.87879	0.68860
7	K20NVEPC	0.27269	0.70920	0.79469	0.91397	0.73724	0.13822	0.87047	0.74853	0.70920	0.74853	0.70920	0.16166
8	K24NVEPC	0.12149	0.52758	0.93628	0.94278	0.90451	0.61817	0.94477	0.57109	0.52758	0.57109	0.52758	0.04282
9	K28NVEPC	-0.00281	0.35017	0.98523	0.91224	0.97727	0.61052	0.94654	0.39165	0.35017	0.39165	0.35017	-0.05528
10	K32NVEPC	-0.04950	0.29195	0.98836	0.90909	0.98381	0.61828	0.94890	0.33346	0.29195	0.33346	0.29195	-0.09417
11	K36NVEPC	-0.13647	0.14496	0.96899	0.84896	0.97772	0.67931	0.90739	0.18319	0.14496	0.18319	0.14496	-0.15990
12	K40NVEPC	-0.15737	0.07469	0.92618	0.76278	0.94325	0.72903	0.83531	0.10946	0.07469	0.10946	0.07469	-0.16836
13	K46NVEPC	-0.09778	0.06506	0.71269	0.47780	0.75929	0.94188	0.55936	0.08489	0.06506	0.08489	0.06506	-0.10517
14	K50NVEPC	-0.11555	0.02747	0.62829	0.41254	0.67800	0.96549	0.49111	0.04382	0.02747	0.04382	0.02747	-0.11924
15	KGTNVEPC	-0.11555	0.02747	0.62829	0.41254	0.67800	0.96549	0.49111	0.04382	0.02747	0.04382	0.02747	-0.11924

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NARROW CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NVADJ	FB_NVADJ	MA_NVADJ	AP_NVADJ	MY_NVADJ	JN_NVADJ	JL_NVADJ	AU_NVADJ	SP_NVADJ	OC_NVADJ	NO_NVADJ	DE_NVADJ
1	0.05389	-0.13522	-0.24423	-0.23060	-0.24431	-0.23696	-0.23313	-0.14097	-0.13522	-0.14097	-0.13522	0.11168
2	0.34639	-0.01818	-0.24975	-0.23654	-0.26093	-0.27022	-0.24758	-0.02191	-0.01818	-0.02191	-0.01818	0.43773
3	0.65955	0.25207	-0.20988	-0.16249	-0.23875	-0.29616	-0.20809	0.24412	0.25207	0.24412	0.25207	0.71796
4	0.75379	0.42555	-0.13709	-0.05055	-0.17497	-0.27926	-0.11805	0.41405	0.42555	0.41405	0.42555	0.72525
5	0.74645	0.54547	-0.06901	0.06171	-0.11686	-0.30215	-0.02117	0.53250	0.54547	0.53250	0.54547	0.66558
6	0.65578	0.70373	0.06990	0.23757	0.01067	-0.28217	0.14565	0.69182	0.70373	0.69182	0.70373	0.52425
7	0.20403	0.55097	0.69325	0.73722	0.64882	0.12974	0.71779	0.58244	0.55097	0.58244	0.55097	0.11908
8	0.07926	0.36048	0.73596	0.67433	0.71849	0.35854	0.69405	0.39096	0.36048	0.39096	0.36048	0.02740
9	-0.00165	0.21728	0.71744	0.59664	0.72014	0.49021	0.63827	0.24356	0.21728	0.24356	0.21728	-0.03179
10	-0.02694	0.16866	0.68069	0.55658	0.68638	0.47346	0.60081	0.19311	0.16866	0.19311	0.16866	-0.04999
11	-0.07248	0.08186	0.65578	0.50905	0.67054	0.51257	0.56324	0.10372	0.08186	0.10372	0.08186	-0.08274
12	-0.07476	0.03809	0.58003	0.41660	0.59959	0.51543	0.47452	0.05598	0.03809	0.05598	0.03809	-0.07760
13	-0.02013	0.01607	0.27356	0.13837	0.29984	0.45099	0.17641	0.02112	0.01607	0.02112	0.01607	-0.01991
14	-0.02379	0.00679	0.24116	0.11947	0.26774	0.46230	0.15489	0.01090	0.00679	0.01090	0.00679	-0.02257
15	-0.02379	0.00679	0.24116	0.11947	0.26774	0.46230	0.15489	0.01090	0.00679	0.01090	0.00679	-0.02257

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR TRANSITIONAL CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K06TVEPC	0.86862	0.70997	0.41941	0.56835	0.43400	0.17377	0.53110	0.69656	0.70997	0.69656	0.70997	0.89355
2	K08TVEPC	0.92938	0.83054	0.56518	0.68841	0.57850	0.34413	0.65815	0.81813	0.83054	0.81813	0.83054	0.94742
3	K10TVEPC	0.91456	0.89567	0.60559	0.70483	0.61865	0.42292	0.68084	0.89108	0.89567	0.89108	0.89567	0.93070
4	K12TVEPC	0.75240	0.90021	0.47336	0.54106	0.48354	0.34652	0.52484	0.91923	0.90021	0.91923	0.90021	0.77353
5	K14TVEPC	0.74875	0.90443	0.49600	0.55627	0.50656	0.38331	0.54207	0.92318	0.90443	0.92318	0.90443	0.76769
6	K16TVEPC	0.58184	0.81955	0.29996	0.35321	0.30683	0.19943	0.34016	0.85399	0.81955	0.85399	0.81955	0.60847
7	K20TVEPC	0.96936	0.76738	0.73319	0.85086	0.74410	0.49552	0.82290	0.73012	0.76738	0.73012	0.76738	0.96774
8	K24TVEPC	0.96114	0.78846	0.83101	0.92006	0.84246	0.63910	0.89971	0.74928	0.78846	0.74928	0.78846	0.95119
9	K28TVEPC	0.92744	0.78682	0.90476	0.96452	0.91714	0.76108	0.95362	0.74661	0.78682	0.74661	0.78682	0.90934
10	K32TVEPC	0.86218	0.74672	0.93042	0.96325	0.94467	0.84352	0.96033	0.70695	0.74672	0.70695	0.74672	0.83801
11	K36TVEPC	0.78794	0.70206	0.93917	0.94633	0.95363	0.89852	0.95112	0.66347	0.70206	0.66347	0.70206	0.75843
12	K40TVEPC	0.78595	0.70120	0.94056	0.94617	0.95485	0.90219	0.95110	0.66268	0.70120	0.66268	0.70120	0.75632
13	K46TVEPC	0.68317	0.61808	0.90679	0.88930	0.92239	0.92478	0.90007	0.58155	0.61808	0.58155	0.61808	0.66962
14	K50TVEPC	0.62301	0.56977	0.88073	0.85219	0.89675	0.92461	0.86624	0.53450	0.56977	0.53450	0.56977	0.58748
15	KGTTVEPC	0.62301	0.56977	0.88073	0.85219	0.89675	0.92461	0.86624	0.53450	0.56977	0.53450	0.56977	0.58748

GAVINS TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR TRANSITIONAL CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.47055	0.31705	0.13754	0.19230	0.13739	0.05222	0.17723	0.30662	0.31705	0.30662	0.31705	0.51181
2	0.54334	0.40027	0.20002	0.25138	0.19763	0.11160	0.23702	0.38866	0.40027	0.38866	0.40027	0.58564
3	0.57501	0.46422	0.23048	0.27679	0.22729	0.14750	0.26369	0.45525	0.46422	0.45525	0.46422	0.61871
4	0.51475	0.50771	0.19604	0.23121	0.19331	0.13151	0.22119	0.51103	0.50771	0.51103	0.50771	0.55955
5	0.53189	0.52964	0.21329	0.24682	0.21028	0.15104	0.23721	0.53290	0.52964	0.53290	0.52964	0.57661
6	0.47747	0.55442	0.14901	0.18104	0.14714	0.09078	0.17195	0.56947	0.55442	0.56947	0.55442	0.52795
7	0.82321	0.53722	0.37691	0.45132	0.36927	0.23343	0.43048	0.50384	0.53722	0.50384	0.53722	0.86895
8	0.83456	0.56438	0.43679	0.49899	0.42746	0.30782	0.48123	0.52867	0.56438	0.52867	0.56438	0.87328
9	0.83624	0.58485	0.49383	0.54320	0.48324	0.38067	0.52967	0.54704	0.58485	0.54704	0.58485	0.86694
10	0.81080	0.57889	0.52965	0.56579	0.51913	0.44003	0.55631	0.54022	0.57889	0.54022	0.57889	0.83326
11	0.78512	0.57669	0.56649	0.58897	0.55527	0.49664	0.58380	0.53720	0.57669	0.53720	0.57669	0.71781
12	0.71851	0.62765	0.61822	0.64170	0.60586	0.54340	0.63616	0.58470	0.62765	0.58470	0.62765	0.64433
13	0.57854	0.58756	0.63298	0.64053	0.62156	0.59156	0.63937	0.54494	0.58756	0.54494	0.58756	0.50717
14	0.50086	0.56180	0.63767	0.63664	0.62677	0.61345	0.63823	0.51949	0.56180	0.51949	0.56180	0.43200
15	0.50086	0.56180	0.63767	0.63664	0.62677	0.61345	0.63823	0.51949	0.56180	0.51949	0.56180	0.43200

GAVINS UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR WIDE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_WVEPC	FB_WVEPC	MA_WVEPC	AP_WVEPC	MY_WVEPC	JN_WVEPC	JL_WVEPC	AU_WVEPC	SP_WVEPC	OC_WVEPC	NO_WVEPC	DE_WVEPC
1	K06WVEPC	0.46456	0.23353	0.28743	0.32829	0.26813	0.12328	0.31741	0.24031	0.23353	0.24031	0.23353	0.46825
2	K08WVEPC	0.63227	0.44583	0.49124	0.53258	0.47202	0.24969	0.52395	0.44760	0.44583	0.44760	0.44583	0.64133
3	K10WVEPC	0.75693	0.60599	0.63441	0.67078	0.61710	0.40744	0.66424	0.60870	0.60599	0.60870	0.60599	0.76357
4	K12WVEPC	0.84999	0.75070	0.76890	0.79953	0.75359	0.53006	0.79460	0.75167	0.75070	0.75167	0.75070	0.85814
5	K14WVEPC	0.87669	0.77275	0.78869	0.81673	0.77421	0.58805	0.81171	0.77648	0.77275	0.77648	0.77275	0.88145
6	K16WVEPC	0.92184	0.83163	0.84458	0.86723	0.83216	0.67736	0.86275	0.83674	0.83163	0.83674	0.83163	0.92418
7	K20WVEPC	0.93472	0.84942	0.86096	0.88159	0.84939	0.70742	0.87741	0.85503	0.84942	0.85503	0.84942	0.93607
8	K24WVEPC	0.89966	0.77689	0.78592	0.80315	0.77610	0.73461	0.79873	0.78928	0.77689	0.78928	0.77689	0.89200
9	K28WVEPC	0.93449	0.83707	0.85172	0.87099	0.84079	0.72281	0.86638	0.84411	0.83707	0.84411	0.83707	0.93389
10	K32WVEPC	0.97197	0.91268	0.92793	0.94158	0.91938	0.78204	0.93812	0.91625	0.91268	0.91625	0.91268	0.97411
11	K36WVEPC	0.98138	0.94335	0.95267	0.95377	0.95000	0.89833	0.95262	0.94905	0.94335	0.94905	0.94335	0.97732
12	K40WVEPC	0.95461	0.94197	0.95058	0.94165	0.95276	0.93758	0.94229	0.94615	0.94197	0.94615	0.94197	0.94831
13	K46WVEPC	0.87825	0.85782	0.86725	0.84921	0.87453	0.94749	0.85162	0.86377	0.85782	0.86377	0.85782	0.86618
14	K50WVEPC	0.84411	0.82595	0.83629	0.81558	0.84511	0.94048	0.81864	0.83108	0.82595	0.83108	0.82595	0.83141
15	KGTWVEPC	0.84411	0.82595	0.83629	0.81558	0.84511	0.94048	0.81864	0.83108	0.82595	0.83108	0.82595	0.83141

GAVINS TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR WIDE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_WVADJ	FB_WVADJ	MA_WVADJ	AP_WVADJ	MY_WVADJ	JN_WVADJ	JL_WVADJ	AU_WVADJ	SP_WVADJ	OC_WVADJ	NO_WVADJ	DE_WVADJ
1	0.35955	0.21775	0.17096	0.21679	0.15293	0.06250	0.20031	0.22656	0.21775	0.22656	0.21775	0.32674
2	0.47536	0.40711	0.29746	0.35804	0.27409	0.12886	0.33663	0.41343	0.40711	0.41343	0.40711	0.43244
3	0.51738	0.51732	0.40517	0.47563	0.37794	0.22178	0.45011	0.52639	0.51732	0.52639	0.51732	0.45947
4	0.56756	0.63053	0.49696	0.57373	0.46707	0.29198	0.54491	0.63978	0.63053	0.63978	0.63053	0.50197
5	0.52995	0.60650	0.53394	0.61389	0.50263	0.33930	0.58306	0.61856	0.60650	0.61856	0.60650	0.45641
6	0.51761	0.62157	0.58939	0.67193	0.55690	0.40287	0.63881	0.63554	0.62157	0.63554	0.62157	0.43633
7	0.68678	0.76302	0.52846	0.60079	0.49996	0.37008	0.57143	0.77717	0.76302	0.77717	0.76302	0.61420
8	0.43575	0.52848	0.57787	0.65565	0.54723	0.46035	0.62313	0.54699	0.52848	0.54699	0.52848	0.34805
9	0.23931	0.40304	0.72057	0.81811	0.68213	0.52118	0.77770	0.41883	0.40304	0.41883	0.40304	0.13798
10	0.12722	0.33995	0.84139	0.93525	0.79944	0.60437	0.90255	0.35571	0.33995	0.35571	0.33995	0.01439
11	-0.18120	0.09219	0.89569	0.78527	0.93449	0.81143	0.83403	0.11022	0.09219	0.11022	0.09219	-0.31308
12	-0.23299	0.04331	0.86631	0.74514	0.91086	0.86993	0.79616	0.06139	0.04331	0.06139	0.04331	-0.36366
13	-0.30043	-0.03377	0.74913	0.62717	0.79620	0.91751	0.67658	-0.01696	-0.03377	-0.01696	-0.03377	-0.42233
14	-0.32718	-0.06526	0.70392	0.58233	0.75151	0.92843	0.63120	-0.04894	-0.06526	-0.04894	-0.06526	-0.44558
15	-0.32718	-0.06526	0.70392	0.58233	0.75151	0.92843	0.63120	-0.04894	-0.06526	-0.04894	-0.06526	-0.44558

APPENDIX B: TOPWIDTHS AND CORRELATION COEFFICIENTS OF FORT RANDALL TAILWATER

Tables of coefficients are presented in two major groups. The first group contains the correlation coefficients for depth and the second contains the correlations for velocity. Within each group, the tables occur in three major subsets--one subset for each of the types of water year (median flow, high flow, and low flow). Within each subset, the coefficients are separated by channel category and then by topwidth adjustment. Within each pair of tables, the first table contains coefficients not adjusted for topwidth and the second member of the pair contains coefficients adjusted for topwidth.

CHANNEL TOPWIDTHS BY DISCHARGE FOR FORT RANDALL

OBS	Q	DISTANT	IMMEDIATE	MIDDLE	NEAR
1	4000	956	676	855	1186
2	6000	1007	1193	1207	1381
3	8000	1085	1218	1504	2145
4	10000	1150	1218	1632	2459
5	12000	1187	1218	1647	3017
6	14000	1234	1405	1769	3023
7	16000	1234	1448	1837	3380
8	18000	1238	1321	1928	3361
9	20000	1238	1336	2162	3366
10	24000	1880	1416	2283	3371
11	28000	2297	1745	2424	3376
12	32000	2297	1901	2513	3441
13	36000	2297	1968	2535	3447
14	40000	2297	1968	2556	3447
15	46000	2297	1972	2575	3447
16	50000	2307	1974	2615	3447
17	60000	2307	1999	2618	3447

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K04DDEPC	0.18672	0.05124	0.81766	0.70002	0.86072	0.92377	0.81766	0.05124	0.05124	0.05124	-0.02983	0.46278
2	K06DDEPC	0.08615	-0.03870	0.59576	0.46369	0.65350	0.98957	0.59576	-0.03870	-0.03870	-0.03870	-0.11716	0.39285
3	K08DDEPC	0.01538	-0.07826	0.40002	0.28700	0.45308	0.92926	0.40002	-0.07826	-0.07826	-0.07826	-0.15339	0.32119
4	K10DDEPC	0.13728	-0.08333	0.30886	0.20946	0.35640	0.84624	0.30886	-0.08333	-0.08333	-0.08333	-0.05636	0.41768
5	K12DDEPC	0.09122	-0.11951	0.21009	0.11939	0.25447	0.76180	0.21009	-0.11951	-0.11951	-0.11951	-0.08667	0.35879
6	K14DDEPC	0.21041	-0.13104	0.12013	0.04119	0.15938	0.63887	0.12013	-0.13104	-0.13104	-0.13104	0.00771	0.43640
7	K16DDEPC	0.03137	-0.17338	0.05945	-0.01746	0.09846	0.60280	0.05945	-0.17338	-0.17338	-0.17338	-0.12511	0.26427
8	K20DDEPC	0.13133	-0.18285	-0.02448	-0.09255	0.01119	0.50293	-0.02448	-0.18285	-0.18285	-0.18285	-0.04301	0.32485
9	K24DDEPC	0.87627	0.01930	-0.04713	-0.05513	-0.04305	-0.00557	-0.04713	0.01930	0.01930	0.01930	0.60064	0.82217
10	K28DDEPC	0.91888	0.06900	-0.00520	-0.00589	-0.00513	-0.01844	-0.00520	0.06900	0.06900	0.06900	0.65119	0.85263
11	K32DDEPC	0.94916	0.12215	0.09626	0.09413	0.09609	0.07381	0.09626	0.12215	0.12215	0.12215	0.67946	0.91319
12	K36DDEPC	0.95661	0.16125	0.20036	0.19255	0.20195	0.19401	0.20036	0.16125	0.16125	0.16125	0.68223	0.95757
13	K40DDEPC	0.94857	0.23570	0.35125	0.34205	0.35206	0.33469	0.35125	0.23570	0.23570	0.23570	0.68639	0.99369
14	K44DDEPC	0.66783	0.27260	0.62954	0.59155	0.64178	0.73318	0.62954	0.27260	0.27260	0.27260	0.45267	0.86838
15	K50DDEPC	0.93907	0.13488	0.19984	0.18614	0.20532	0.23663	0.19984	0.13488	0.13488	0.13488	0.65342	0.95404
16	K60DDEPC	0.81920	0.18221	0.41699	0.38108	0.43049	0.55057	0.41699	0.18221	0.18221	0.18221	0.54693	0.95360
17	K6TDDEPC	0.81920	0.18221	0.41699	0.38108	0.43049	0.55057	0.41699	0.18221	0.18221	0.18221	0.54693	0.95360

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.13267	0.02701	0.40252	0.34460	0.41684	0.44046	0.40252	0.02652	0.02701	0.02668	-0.01573	0.42995
2	0.06448	-0.02149	0.30892	0.24044	0.33337	0.49700	0.30892	-0.02110	-0.02149	-0.02123	-0.06506	0.38445
3	0.01240	-0.04683	0.22349	0.16035	0.24903	0.50287	0.22349	-0.04597	-0.04683	-0.04626	-0.09178	0.38571
4	0.11733	-0.05285	0.18290	0.12403	0.20763	0.48538	0.18290	-0.05189	-0.05285	-0.05220	-0.03574	0.36857
5	0.08047	-0.07823	0.12841	0.07297	0.15301	0.45100	0.12841	-0.07681	-0.07823	-0.07727	-0.05674	0.30570
6	0.19297	-0.08917	0.07633	0.02617	0.09963	0.39320	0.07633	-0.08755	-0.08917	-0.08808	0.00525	0.34946
7	0.02877	-0.11799	0.03777	-0.01110	0.06155	0.37100	0.03777	-0.11584	-0.11799	-0.11654	-0.08378	0.21162
8	0.12084	-0.12484	-0.01560	-0.05900	0.00702	0.31054	-0.01560	-0.12256	-0.12484	-0.12331	-0.02936	0.25887
9	0.80626	0.01318	-0.03004	-0.03514	-0.02700	-0.00344	-0.03004	0.01294	0.01318	0.01302	0.41008	0.65518
10	0.55385	0.06646	-0.00504	-0.00570	-0.00489	-0.01729	-0.00504	0.06776	0.06646	0.06733	0.62724	0.14769
11	0.27794	0.08957	0.07866	0.07692	0.08037	0.06306	0.07866	0.09239	0.08957	0.09147	0.49821	-0.21210
12	0.28012	0.11824	0.16373	0.15736	0.16891	0.16575	0.16373	0.12196	0.11824	0.12074	0.50026	-0.22261
13	0.27771	0.17283	0.28704	0.27952	0.29445	0.28595	0.28704	0.17828	0.17283	0.17649	0.50329	-0.23080
14	0.19556	0.19988	0.51446	0.48341	0.53676	0.62641	0.51446	0.20618	0.19988	0.20412	0.33177	-0.20169
15	0.27499	0.09890	0.16331	0.15048	0.17172	0.20216	0.16331	0.10202	0.09890	0.10099	0.47912	-0.22205
16	0.23380	0.13260	0.33861	0.30945	0.35787	0.46764	0.33861	0.13683	0.13260	0.13544	0.39802	-0.23075
17	0.23380	0.13260	0.33861	0.30945	0.35787	0.46764	0.33861	0.13683	0.13260	0.13544	0.39802	-0.23075

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.73723	0.51605	0.87050	0.69212	0.20475	0.31762	0.87050	0.51605	0.51605	0.51605	0.57174	0.75570
2	K06NDEPC	0.69577	0.42117	0.78741	0.57827	0.21212	0.17973	0.78741	0.42117	0.42117	0.42117	0.48836	0.72547
3	K08NDEPC	0.79186	0.55453	0.86425	0.68587	0.28946	0.24301	0.86425	0.55453	0.55453	0.55453	0.61601	0.81203
4	K10NDEPC	0.86031	0.68465	0.93432	0.79879	0.32831	0.34078	0.93432	0.68465	0.68465	0.68465	0.73429	0.86956
5	K12NDEPC	0.89078	0.79943	0.98297	0.90242	0.33032	0.46124	0.98297	0.79943	0.79943	0.79943	0.83135	0.88631
6	K14NDEPC	0.81535	0.61366	0.90795	0.75095	0.28620	0.31895	0.90795	0.61366	0.61366	0.61366	0.66754	0.82946
7	K16NDEPC	0.87685	0.78094	0.98347	0.89754	0.31136	0.47136	0.98347	0.78094	0.78094	0.78094	0.81322	0.87333
8	K20NDEPC	0.71370	0.79866	0.96721	0.98373	0.12221	0.78142	0.96721	0.79866	0.79866	0.79866	0.78628	0.68516
9	K24NDEPC	0.68171	0.75346	0.96372	0.96710	0.08626	0.80067	0.96372	0.75346	0.75346	0.75346	0.74270	0.65577
10	K28NDEPC	0.76428	0.62726	0.95092	0.82321	0.18476	0.49629	0.95092	0.62726	0.62726	0.62726	0.66439	0.76906
11	K32NDEPC	0.75126	0.59618	0.93501	0.79494	0.17800	0.46742	0.93501	0.59618	0.59618	0.59618	0.63698	0.75909
12	K36NDEPC	0.73835	0.59645	0.94010	0.80627	0.15779	0.50141	0.94010	0.59645	0.59645	0.59645	0.63383	0.74433
13	K40NDEPC	0.01714	0.26080	0.31481	0.44235	-0.20057	0.55685	0.31481	0.26080	0.26080	0.26080	0.19784	-0.01971
14	K44NDEPC	0.54691	0.52772	0.90405	0.83102	-0.04913	0.77082	0.90405	0.52772	0.52772	0.52772	0.53245	0.53726
15	K50NDEPC	0.01638	0.25974	0.31453	0.44196	-0.20050	0.55750	0.31453	0.25974	0.25974	0.25974	0.19683	-0.02041
16	K60NDEPC	0.01219	0.25390	0.31300	0.43977	-0.20120	0.56106	0.31300	0.25390	0.25390	0.25390	0.19125	-0.02425
17	K6TNDEPC	0.01219	0.25390	0.31300	0.43977	-0.20120	0.56106	0.31300	0.25390	0.25390	0.25390	0.19125	-0.02425

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_MDADJ	FB_MDADJ	MA_MDADJ	AP_MDADJ	MY_MDADJ	JN_MDADJ	JL_MDADJ	AU_MDADJ	SP_MDADJ	OC_MDADJ	NO_MDADJ	DE_MDADJ
1	0.37755	0.25297	0.32156	0.25567	0.07563	0.11733	0.32156	0.24344	0.25297	0.25152	0.28027	0.38922
2	0.62883	0.36436	0.51332	0.37698	0.13828	0.11717	0.51332	0.35063	0.36436	0.36226	0.42249	0.65760
3	0.73067	0.48979	0.57522	0.45650	0.19266	0.16174	0.57522	0.47133	0.48979	0.48696	0.54409	0.75356
4	0.79383	0.60472	0.62186	0.53165	0.21851	0.22682	0.62186	0.58193	0.60472	0.60123	0.64856	0.80695
5	0.82195	0.70609	0.65424	0.60063	0.21986	0.30699	0.65424	0.67948	0.70609	0.70202	0.73429	0.82250
6	0.76285	0.60209	0.69707	0.57655	0.21973	0.24487	0.69707	0.60167	0.60209	0.60569	0.65496	0.77100
7	0.79182	0.74186	0.77818	0.71018	0.24637	0.37297	0.77818	0.77276	0.74186	0.74659	0.77253	0.78317
8	0.71316	0.76507	0.69819	0.71011	0.08822	0.56407	0.69819	0.73624	0.76507	0.76066	0.75321	0.68072
9	0.67345	0.72997	0.70357	0.70604	0.06297	0.58453	0.70357	0.70246	0.72997	0.72576	0.71954	0.64403
10	0.70869	0.61043	0.73579	0.63698	0.14296	0.38402	0.73579	0.61982	0.61043	0.61414	0.64657	0.70841
11	0.50958	0.43795	0.89158	0.75802	0.16973	0.44571	0.89158	0.46638	0.43795	0.44230	0.46792	0.50895
12	0.41336	0.37067	0.90363	0.77498	0.15167	0.48196	0.90363	0.40165	0.37067	0.37541	0.39390	0.41059
13	0.00872	0.14940	0.29107	0.40899	-0.18526	0.51486	0.29107	0.16343	0.14940	0.15155	0.11334	-0.00987
14	0.27842	0.30232	0.83587	0.76835	-0.04543	0.71269	0.83587	0.33070	0.30232	0.30666	0.30503	0.26894
15	0.00829	0.14805	0.29013	0.40766	-0.18494	0.51424	0.29013	0.16204	0.14805	0.15019	0.11219	-0.01015
16	0.00615	0.14435	0.28837	0.40516	-0.18537	0.51691	0.28837	0.15805	0.14435	0.14645	0.10873	-0.01203
17	0.00592	0.13975	0.28410	0.39915	-0.18262	0.50924	0.28410	0.15362	0.13975	0.14187	0.10526	-0.01157

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.75225	0.73552	0.26767	0.33386	0.20524	-0.03125	0.26767	0.73552	0.73552	0.73552	0.72457	0.73391
2	K06TDEPC	0.81605	0.77074	0.42499	0.49545	0.35915	0.10409	0.42499	0.77074	0.77074	0.77074	0.78197	0.82437
3	K08TDEPC	0.87851	0.83051	0.51483	0.58462	0.44947	0.17763	0.51483	0.83051	0.83051	0.83051	0.84677	0.89125
4	K10TDEPC	0.83308	0.75308	0.62886	0.69700	0.56540	0.30108	0.62886	0.75308	0.75308	0.75308	0.79557	0.87804
5	K12TDEPC	0.83518	0.74676	0.78347	0.84030	0.73010	0.47115	0.78347	0.74676	0.74676	0.74676	0.80510	0.89612
6	K14TDEPC	0.84212	0.75829	0.84269	0.89193	0.79552	0.54378	0.84269	0.75829	0.75829	0.75829	0.81853	0.90254
7	K16TDEPC	0.82514	0.75276	0.92706	0.95928	0.89390	0.67059	0.92706	0.75276	0.75276	0.75276	0.81456	0.88262
8	K20TDEPC	0.80461	0.73839	0.96374	0.98501	0.93910	0.74771	0.96374	0.73839	0.73839	0.73839	0.80059	0.85986
9	K24TDEPC	0.77907	0.71768	0.98161	0.99445	0.96370	0.79872	0.98161	0.71768	0.71768	0.71768	0.77992	0.83278
10	K28TDEPC	0.75155	0.69573	0.99064	0.99640	0.97835	0.83901	0.99064	0.69573	0.69573	0.69573	0.75608	0.80429
11	K32TDEPC	0.71099	0.65889	0.99576	0.99234	0.99101	0.88194	0.99576	0.65889	0.65889	0.65889	0.72073	0.76189
12	K36TDEPC	0.65456	0.60989	0.99119	0.97681	0.99554	0.92372	0.99119	0.60989	0.60989	0.60989	0.67047	0.70278
13	K40TDEPC	0.59269	0.55428	0.97573	0.95144	0.98829	0.95478	0.97573	0.55428	0.55428	0.55428	0.61362	0.63872
14	K46TDEPC	0.48854	0.45980	0.93387	0.89546	0.95828	0.98241	0.93387	0.45980	0.45980	0.45980	0.51638	0.53078
15	K50TDEPC	0.43331	0.40737	0.90673	0.86260	0.93593	0.98867	0.90673	0.40737	0.40737	0.40737	0.46325	0.47491
16	K60TDEPC	0.22676	0.21346	0.77775	0.71511	0.82296	0.96837	0.77775	0.21346	0.21346	0.21346	0.26385	0.26328
17	KQTTDEPC	0.22676	0.21346	0.77775	0.71511	0.82296	0.96837	0.77775	0.21346	0.21346	0.21346	0.26385	0.26328

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.46845	0.38276	0.10800	0.13767	0.07995	-0.01209	0.10795	0.37178	0.38276	0.37725	0.37706	0.48783
2	0.71737	0.56621	0.24208	0.28840	0.19749	0.05685	0.24197	0.54998	0.56621	0.55806	0.57446	0.77355
3	0.79469	0.76024	0.36541	0.42405	0.30797	0.12089	0.36524	0.73845	0.76024	0.74930	0.77513	0.74041
4	0.67593	0.74804	0.48433	0.54859	0.42038	0.22233	0.48410	0.72659	0.74804	0.73727	0.79024	0.64206
5	0.66851	0.74494	0.60895	0.66746	0.54783	0.35112	0.60866	0.72712	0.74494	0.73780	0.80314	0.64483
6	0.59924	0.70014	0.70350	0.76095	0.64113	0.43527	0.70317	0.72355	0.70014	0.71189	0.75576	0.56385
7	0.54629	0.66388	0.80368	0.84986	0.74811	0.55741	0.80330	0.68801	0.66388	0.67599	0.71838	0.50474
8	0.47937	0.61031	0.87687	0.91589	0.82487	0.65230	0.87646	0.63515	0.61031	0.62278	0.66171	0.43090
9	0.33137	0.49098	0.96169	0.95200	0.94921	0.78137	0.96216	0.51806	0.49098	0.50457	0.53356	0.26583
10	0.25343	0.42350	0.91397	0.89572	0.93913	0.81129	0.91448	0.45114	0.42350	0.43738	0.46156	0.18108
11	0.16674	0.34569	0.85244	0.82459	0.88762	0.79654	0.85297	0.37356	0.34569	0.35968	0.37813	0.08802
12	0.11108	0.28694	0.80690	0.76976	0.85131	0.79707	0.80745	0.31369	0.28694	0.30057	0.31544	0.03256
13	0.09108	0.25336	0.78418	0.73968	0.83521	0.81437	0.78473	0.27788	0.25336	0.26567	0.28048	0.01867
14	0.06761	0.20430	0.74128	0.68709	0.80068	0.82860	0.74181	0.22481	0.20430	0.21459	0.22943	0.00685
15	0.05397	0.17629	0.71161	0.65397	0.77390	0.82538	0.71213	0.19459	0.17629	0.18548	0.20047	-0.00089
16	0.02164	0.08718	0.59570	0.52835	0.66549	0.79091	0.59615	0.09692	0.08718	0.09207	0.10776	-0.00868
17	0.02114	0.08679	0.59460	0.52732	0.66436	0.78960	0.59505	0.09654	0.08679	0.09168	0.10728	-0.00929

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.49052	0.47291	0.37757	0.37497	0.31905	0.13595	0.37757	0.47291	0.47291	0.47291	0.49221	0.49630
2	K06NDEPC	0.60805	0.59390	0.49613	0.51920	0.43235	0.20654	0.49613	0.59390	0.59390	0.59390	0.61106	0.64415
3	K08NDEPC	0.91254	0.87954	0.70303	0.56995	0.55172	0.20690	0.70303	0.87954	0.87954	0.87954	0.90497	0.86046
4	K10NDEPC	0.90581	0.89408	0.77655	0.73547	0.66775	0.33147	0.77655	0.89408	0.89408	0.89408	0.90708	0.92321
5	K12NDEPC	0.95230	0.92743	0.82992	0.78975	0.72801	0.38988	0.82992	0.92743	0.92743	0.92743	0.93530	0.95661
6	K14NDEPC	0.90008	0.91898	0.89554	0.91027	0.83656	0.52611	0.89554	0.91898	0.91898	0.91898	0.91067	0.97176
7	K16NDEPC	0.91079	0.95693	0.93967	0.93641	0.88819	0.58753	0.93967	0.95693	0.95693	0.95693	0.92238	0.97734
8	K20NDEPC	0.69148	0.75447	0.89860	0.96483	0.93883	0.77302	0.89860	0.75447	0.75447	0.75447	0.71397	0.81451
9	K24NDEPC	0.60174	0.67259	0.85814	0.91161	0.92261	0.81675	0.85814	0.67259	0.67259	0.67259	0.62531	0.71916
10	K28NDEPC	0.46412	0.54030	0.77144	0.79968	0.86727	0.86265	0.77144	0.54030	0.54030	0.54030	0.48763	0.56750
11	K32NDEPC	0.28757	0.36142	0.62087	0.61659	0.74406	0.86491	0.62087	0.36142	0.36142	0.36142	0.30861	0.36827
12	K36NDEPC	0.16833	0.23589	0.49821	0.47404	0.63281	0.83678	0.49821	0.23589	0.23589	0.23589	0.18641	0.23275
13	K40NDEPC	0.07826	0.13824	0.39293	0.35619	0.53188	0.79852	0.39293	0.13824	0.13824	0.13824	0.09330	0.13070
14	K46NDEPC	-0.10443	-0.06064	0.15411	0.10171	0.28743	0.64807	0.15411	-0.06064	-0.06064	-0.06064	-0.09274	-0.08177
15	K50NDEPC	-0.17733	-0.13881	0.04857	-0.00424	0.17315	0.55817	0.04857	-0.13881	-0.13881	-0.13881	-0.16401	-0.16468
16	K60NDEPC	-0.30184	-0.27276	-0.14450	-0.18638	-0.04623	0.34424	-0.14450	-0.27276	-0.27276	-0.27276	-0.28951	-0.30514
17	KGTNDEPC	-0.30184	-0.27276	-0.14450	-0.18638	-0.04623	0.34424	-0.14450	-0.27276	-0.27276	-0.27276	-0.28951	-0.30514

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_WDADJ	FB_WDADJ	MA_WDADJ	AP_WDADJ	MY_WDADJ	JN_WDADJ	JL_WDADJ	AU_WDADJ	SP_WDADJ	OC_WDADJ	NO_WDADJ	DE_WDADJ
1	0.48480	0.33109	0.18799	0.18670	0.14741	0.06023	0.17444	0.29929	0.33109	0.31616	0.34461	0.45992
2	0.51633	0.48416	0.28764	0.30102	0.23260	0.10655	0.26691	0.43766	0.48416	0.46233	0.49816	0.48326
3	0.19391	0.64538	0.63308	0.51322	0.46102	0.16578	0.58746	0.75235	0.64538	0.69560	0.66404	0.05062
4	-0.04454	0.49032	0.75145	0.71170	0.63966	0.30448	0.74388	0.61498	0.49032	0.54884	0.49745	-0.20804
5	-0.47956	0.20311	0.60868	0.57920	0.60039	0.34036	0.68443	0.36177	0.20311	0.27760	0.20484	-0.69863
6	-0.46729	0.19801	0.65455	0.66532	0.68795	0.45811	0.73646	0.35553	0.19801	0.27196	0.19622	-0.71497
7	-0.74381	0.00442	0.54597	0.54408	0.60689	0.43324	0.64206	0.18399	0.00442	0.08873	0.00436	-1.03483
8	-0.55376	0.01203	0.52928	0.56828	0.64844	0.57551	0.62065	0.15581	0.01203	0.07953	0.01138	-0.84841
9	-0.48440	0.00873	0.50364	0.53503	0.63544	0.60654	0.59104	0.13710	0.00873	0.06900	0.00812	-0.75235
10	-0.37555	0.00542	0.45114	0.46766	0.59564	0.63901	0.52982	0.10869	0.00542	0.05391	0.00489	-0.59626
11	-0.23389	0.00256	0.36178	0.35929	0.50957	0.63907	0.42520	0.07174	0.00256	0.03504	0.00219	-0.38860
12	-0.14603	-0.00738	0.27671	0.26329	0.41736	0.59796	0.32858	0.03864	-0.00738	0.01423	-0.00583	-0.25929
13	-0.06828	-0.00481	0.21725	0.19693	0.34954	0.56884	0.25823	0.02220	-0.00481	0.00787	-0.00325	-0.14631
14	0.09112	0.00211	0.08521	0.05624	0.18890	0.46166	0.10128	-0.00974	0.00211	-0.00345	0.00323	0.09154
15	0.15472	0.00483	0.02686	-0.00235	0.11379	0.39762	0.03192	-0.02230	0.00483	-0.00790	0.00571	0.18435
16	0.26336	0.00950	-0.07989	-0.10305	-0.03038	0.24522	-0.09496	-0.04381	0.00950	-0.01553	0.01008	0.34159
17	0.26336	0.00950	-0.07989	-0.10305	-0.03038	0.24522	-0.09496	-0.04381	0.00950	-0.01553	0.01008	0.34159

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K0400EPC	0.18672	0.05124	0.81766	0.70002	0.86072	0.92377	0.81766	0.05124	0.05124	0.05124	-0.02983	0.46278
2	K0600EPC	0.08615	-0.03870	0.59576	0.46369	0.65350	0.98957	0.59576	-0.03870	-0.03870	-0.03870	-0.11716	0.39285
3	K0800EPC	0.01538	-0.07826	0.40002	0.28700	0.45308	0.92926	0.40002	-0.07826	-0.07826	-0.07826	-0.15339	0.32119
4	K1000EPC	0.13728	-0.08333	0.30886	0.20946	0.35640	0.84624	0.30886	-0.08333	-0.08333	-0.08333	-0.05636	0.41768
5	K1200EPC	0.09122	-0.11951	0.21009	0.11939	0.25447	0.76180	0.21009	-0.11951	-0.11951	-0.11951	-0.08667	0.35879
6	K1400EPC	0.21041	-0.13104	0.12013	0.04119	0.15938	0.63887	0.12013	-0.13104	-0.13104	-0.13104	0.00771	0.43640
7	K1600EPC	0.03137	-0.17338	0.05945	-0.01746	0.09846	0.60280	0.05945	-0.17338	-0.17338	-0.17338	-0.12311	0.26427
8	K2000EPC	0.13133	-0.18285	-0.02648	-0.09255	0.01119	0.50293	-0.02448	-0.18285	-0.18285	-0.18285	-0.04301	0.32485
9	K2400EPC	0.87627	0.01930	-0.04713	-0.05513	-0.04305	-0.00557	-0.04713	0.01930	0.01930	0.01930	0.60064	0.82217
10	K2800EPC	0.91888	0.06900	-0.00520	-0.00589	-0.00513	-0.01844	-0.00520	0.06900	0.06900	0.06900	0.65119	0.85263
11	K3200EPC	0.94916	0.12215	0.09626	0.09413	0.09609	0.07381	0.09626	0.12215	0.12215	0.12215	0.67946	0.91319
12	K3600EPC	0.95661	0.16125	0.20036	0.19255	0.20195	0.19401	0.20036	0.16125	0.16125	0.16125	0.68223	0.95757
13	K4000EPC	0.94837	0.23570	0.35125	0.34205	0.35206	0.33469	0.35125	0.23570	0.23570	0.23570	0.68639	0.99369
14	K4600EPC	0.66783	0.27260	0.62954	0.59155	0.64178	0.73318	0.62954	0.27260	0.27260	0.27260	0.45247	0.86838
15	K5000EPC	0.93907	0.13488	0.19984	0.18414	0.20532	0.23663	0.19984	0.13488	0.13488	0.13488	0.65342	0.95604
16	K6000EPC	0.81920	0.18221	0.41699	0.38108	0.43049	0.55057	0.41699	0.18221	0.18221	0.18221	0.54693	0.95360
17	KGTDDEPC	0.81920	0.18221	0.41699	0.38108	0.43049	0.55057	0.41699	0.18221	0.18221	0.18221	0.54693	0.95360

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.09982	0.02652	0.38987	0.33910	0.41040	0.44046	0.38987	0.02652	0.02652	0.02652	-0.01544	0.24932
2	0.04851	-0.02110	0.29922	0.23660	0.32821	0.49700	0.29922	-0.02110	-0.02110	-0.02110	-0.06388	0.22294
3	0.00933	-0.04597	0.21647	0.15779	0.26518	0.50287	0.21647	-0.04597	-0.04597	-0.04597	-0.09011	0.19639
4	0.08828	-0.05189	0.17715	0.12205	0.20442	0.48538	0.17715	-0.05189	-0.05189	-0.05189	-0.03509	0.27069
5	0.06055	-0.07681	0.12438	0.07181	0.15065	0.45100	0.12438	-0.07681	-0.07681	-0.07681	-0.05570	0.24000
6	0.14519	-0.08755	0.07394	0.02576	0.09809	0.39320	0.07394	-0.08755	-0.08755	-0.08755	0.00515	0.30348
7	0.02165	-0.11584	0.03659	-0.01092	0.06060	0.37100	0.03659	-0.11584	-0.11584	-0.11584	-0.08225	0.18378
8	0.09092	-0.12256	-0.01511	-0.05806	0.00691	0.31054	-0.01511	-0.12256	-0.12256	-0.12256	-0.02883	0.22663
9	0.60662	0.01294	-0.02910	-0.03458	-0.02658	-0.00344	-0.02910	0.01294	0.01294	0.01294	0.40259	0.57359
10	0.87176	0.06776	-0.00488	-0.00561	-0.00481	-0.01729	-0.00488	0.06776	0.06776	0.06776	0.63956	0.80194
11	0.67916	0.09239	0.08224	0.07870	0.08210	0.06306	0.08224	0.09239	0.09239	0.09239	0.51392	0.66430
12	0.68449	0.12196	0.17118	0.16099	0.17254	0.16575	0.17118	0.12196	0.12196	0.12196	0.51601	0.67562
13	0.67859	0.17828	0.30010	0.28598	0.30079	0.28595	0.30010	0.17828	0.17828	0.17828	0.51916	0.70110
14	0.47786	0.20618	0.53786	0.49458	0.54831	0.62641	0.53786	0.20618	0.20618	0.20618	0.34223	0.61269
15	0.67194	0.10202	0.17074	0.15395	0.17542	0.20216	0.17074	0.10202	0.10202	0.10202	0.49422	0.67453
16	0.58159	0.13683	0.35418	0.31668	0.36565	0.46764	0.35418	0.13683	0.13683	0.13683	0.41072	0.66744
17	0.58159	0.13683	0.35418	0.31668	0.36565	0.46764	0.35418	0.13683	0.13683	0.13683	0.41072	0.66744

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.73723	0.51605	0.87050	0.69212	0.20475	0.31762	0.87050	0.51605	0.51605	0.51605	0.57174	0.75570
2	K06NDEPC	0.69577	0.42117	0.78741	0.57827	0.21212	0.17973	0.78741	0.42117	0.42117	0.42117	0.48836	0.72347
3	K08NDEPC	0.79186	0.55453	0.86425	0.68587	0.28946	0.24301	0.86425	0.55453	0.55453	0.55453	0.61601	0.81203
4	K10NDEPC	0.86031	0.68465	0.93432	0.79879	0.32831	0.34078	0.93432	0.68465	0.68465	0.68465	0.73429	0.86956
5	K12NDEPC	0.89078	0.79943	0.98297	0.90242	0.33032	0.46124	0.98297	0.79943	0.79943	0.79943	0.83135	0.88631
6	K14NDEPC	0.81535	0.61366	0.90793	0.75095	0.28620	0.31895	0.90793	0.61366	0.61366	0.61366	0.66754	0.82946
7	K16NDEPC	0.87685	0.78094	0.98347	0.89754	0.31136	0.47136	0.98347	0.78094	0.78094	0.78094	0.81322	0.87333
8	K20NDEPC	0.71370	0.79866	0.96721	0.98373	0.12221	0.78142	0.96721	0.79866	0.79866	0.79866	0.78628	0.68516
9	K24NDEPC	0.68171	0.75346	0.96372	0.96710	0.08626	0.80067	0.96372	0.75346	0.75346	0.75346	0.74270	0.65577
10	K28NDEPC	0.76428	0.62726	0.95092	0.82321	0.18476	0.49629	0.95092	0.62726	0.62726	0.62726	0.66439	0.76906
11	K32NDEPC	0.75126	0.59618	0.93501	0.79494	0.17800	0.46742	0.93501	0.59618	0.59618	0.59618	0.63698	0.75909
12	K36NDEPC	0.73835	0.59645	0.94010	0.80627	0.15779	0.50141	0.94010	0.59645	0.59645	0.59645	0.63383	0.74433
13	K40NDEPC	0.01714	0.26080	0.31481	0.44235	-0.20037	0.55685	0.31481	0.26080	0.26080	0.26080	0.19784	-0.01971
14	K46NDEPC	0.54691	0.52772	0.90405	0.83102	-0.04913	0.77082	0.90405	0.52772	0.52772	0.52772	0.53245	0.53726
15	K50NDEPC	0.01638	0.25974	0.31453	0.44196	-0.20050	0.55750	0.31453	0.25974	0.25974	0.25974	0.19683	-0.02041
16	K60NDEPC	0.01219	0.25390	0.31300	0.43977	-0.20120	0.56106	0.31300	0.25390	0.25390	0.25390	0.19125	-0.02425
17	KGTNDEPC	0.01219	0.25390	0.31300	0.43977	-0.20120	0.56106	0.31300	0.25390	0.25390	0.25390	0.19125	-0.02425

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.36610	0.23651	0.32156	0.25567	0.07563	0.11733	0.32156	0.23651	0.23651	0.23651	0.26971	0.37911
2	0.60975	0.34065	0.51332	0.37698	0.13828	0.11717	0.51332	0.34065	0.34065	0.34065	0.40657	0.64052
3	0.70851	0.45791	0.57522	0.45650	0.19266	0.16174	0.57522	0.45791	0.45791	0.45791	0.52359	0.73399
4	0.76974	0.56536	0.62186	0.53165	0.21851	0.22682	0.62186	0.56536	0.56536	0.56536	0.62412	0.78599
5	0.79701	0.66014	0.65424	0.60063	0.21986	0.30699	0.65424	0.66014	0.66014	0.66014	0.70662	0.80113
6	0.78918	0.58453	0.69707	0.57655	0.21973	0.24487	0.69707	0.58453	0.58453	0.58453	0.65450	0.79406
7	0.82100	0.76664	0.77818	0.71018	0.24637	0.37297	0.77818	0.76664	0.76664	0.76664	0.80470	0.80819
8	0.69257	0.71528	0.69819	0.71011	0.08822	0.56407	0.69819	0.71528	0.71528	0.71528	0.72483	0.67169
9	0.66904	0.68246	0.70357	0.70604	0.06297	0.58453	0.70357	0.68246	0.68246	0.68246	0.69243	0.65017
10	0.73357	0.60217	0.73579	0.63698	0.14296	0.38402	0.73579	0.60217	0.60217	0.60217	0.65651	0.72997
11	0.53951	0.48705	0.89158	0.75802	0.16973	0.44571	0.89158	0.48705	0.48705	0.48705	0.49830	0.53516
12	0.44562	0.42418	0.90363	0.77498	0.15167	0.48196	0.90363	0.42418	0.42418	0.42418	0.42683	0.43859
13	0.00950	0.17363	0.29107	0.40899	-0.18526	0.51486	0.29107	0.17363	0.17363	0.17363	0.12398	-0.01063
14	0.30316	0.35134	0.83587	0.76835	-0.04543	0.71269	0.83587	0.35134	0.35134	0.35134	0.33367	0.28986
15	0.00903	0.17222	0.29013	0.40766	-0.18494	0.51424	0.29013	0.17222	0.17222	0.17222	0.12279	-0.01095
16	0.00671	0.16801	0.28837	0.40516	-0.18537	0.51691	0.28837	0.16801	0.16801	0.16801	0.11904	-0.01297
17	0.00648	0.16370	0.28410	0.39915	-0.18262	0.50924	0.28410	0.16370	0.16370	0.16370	0.11571	-0.01252

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.75225	0.73552	0.26767	0.33386	0.20524	-0.03125	0.26767	0.73552	0.73552	0.73552	0.72457	0.73391
2	K06TDEPC	0.81603	0.77074	0.42699	0.49545	0.35915	0.10409	0.42699	0.77074	0.77074	0.77074	0.78197	0.82637
3	K08TDEPC	0.87851	0.83051	0.51483	0.58462	0.44947	0.17763	0.51483	0.83051	0.83051	0.83051	0.84677	0.89125
4	K10TDEPC	0.83308	0.75308	0.62886	0.69700	0.56540	0.30108	0.62886	0.75308	0.75308	0.75308	0.79557	0.87804
5	K12TDEPC	0.83518	0.74676	0.78347	0.84030	0.73010	0.47115	0.78347	0.74676	0.74676	0.74676	0.80510	0.89612
6	K14TDEPC	0.84212	0.75829	0.84269	0.89193	0.79552	0.54378	0.84269	0.75829	0.75829	0.75829	0.81853	0.90254
7	K16TDEPC	0.82514	0.75276	0.92706	0.95928	0.89390	0.67059	0.92706	0.75276	0.75276	0.75276	0.81456	0.88262
8	K20TDEPC	0.80461	0.73839	0.96374	0.98501	0.93910	0.74771	0.96374	0.73839	0.73839	0.73839	0.80059	0.85986
9	K24TDEPC	0.77907	0.71768	0.98161	0.99445	0.96370	0.79872	0.98161	0.71768	0.71768	0.71768	0.77992	0.83278
10	K28TDEPC	0.75153	0.69573	0.99064	0.99640	0.97835	0.83901	0.99064	0.69573	0.69573	0.69573	0.75408	0.80429
11	K32TDEPC	0.71099	0.65889	0.99576	0.99234	0.99101	0.88194	0.99576	0.65889	0.65889	0.65889	0.72073	0.76189
12	K36TDEPC	0.65456	0.60989	0.99119	0.97681	0.99554	0.92372	0.99119	0.60989	0.60989	0.60989	0.67047	0.70278
13	K40TDEPC	0.59269	0.55428	0.97573	0.95144	0.98829	0.95478	0.97573	0.55428	0.55428	0.55428	0.61342	0.63872
14	K46TDEPC	0.48854	0.45980	0.93387	0.89546	0.95828	0.98261	0.95387	0.45980	0.45980	0.45980	0.51638	0.53078
15	K50TDEPC	0.43331	0.40737	0.90673	0.86260	0.93995	0.98867	0.90673	0.40737	0.40737	0.40737	0.46325	0.47691
16	K60TDEPC	0.22676	0.21346	0.77775	0.71511	0.82296	0.96837	0.77775	0.21346	0.21346	0.21346	0.26385	0.26328
17	KSTTDEPC	0.22676	0.21346	0.77775	0.71511	0.82296	0.96837	0.77775	0.21346	0.21346	0.21346	0.26385	0.26328

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.39929	0.34206	0.10356	0.13005	0.07940	-0.01209	0.10356	0.35251	0.35251	0.35251	0.36625	0.39453
2	0.61147	0.51137	0.23211	0.27244	0.19615	0.05685	0.23211	0.52146	0.52146	0.52146	0.55799	0.62560
3	0.82026	0.69006	0.35036	0.40058	0.30588	0.12089	0.35036	0.70016	0.70016	0.70016	0.75290	0.84278
4	0.82212	0.68006	0.46439	0.51823	0.41752	0.22233	0.46439	0.68891	0.68891	0.68891	0.76758	0.85513
5	0.81661	0.68067	0.58388	0.63051	0.54411	0.35112	0.58388	0.68942	0.68942	0.68942	0.78992	0.86429
6	0.75941	0.74333	0.67453	0.71883	0.63678	0.43527	0.67453	0.75192	0.75192	0.75192	0.78103	0.80125
7	0.70927	0.71330	0.77059	0.80282	0.74303	0.55741	0.77059	0.73040	0.73040	0.73040	0.74449	0.74583
8	0.64617	0.66180	0.84076	0.86520	0.81927	0.65230	0.84076	0.67879	0.67879	0.67879	0.68865	0.67740
9	0.51268	0.54858	0.96029	0.97950	0.94277	0.78137	0.96029	0.56562	0.56562	0.56562	0.56298	0.53354
10	0.43792	0.48295	0.95792	0.95645	0.94604	0.81129	0.95792	0.49969	0.49969	0.49969	0.49169	0.45410
11	0.35205	0.40633	0.89934	0.88881	0.89505	0.79654	0.89934	0.42252	0.42252	0.42252	0.40862	0.36262
12	0.28794	0.34551	0.85530	0.83529	0.85905	0.79707	0.85530	0.36067	0.36067	0.36067	0.34485	0.29517
13	0.25263	0.30714	0.83224	0.80407	0.84295	0.81437	0.83224	0.32095	0.32095	0.32095	0.30763	0.25942
14	0.20187	0.24934	0.78766	0.74819	0.80825	0.82860	0.78766	0.26083	0.26083	0.26083	0.25247	0.20858
15	0.17394	0.21655	0.75698	0.71327	0.78136	0.82538	0.75698	0.22675	0.22675	0.22675	0.22129	0.18095
16	0.08539	0.10865	0.63522	0.57827	0.67214	0.79091	0.63522	0.11403	0.11403	0.11403	0.11980	0.09369
17	0.08497	0.10829	0.63416	0.57730	0.67103	0.78960	0.63416	0.11367	0.11367	0.11367	0.11933	0.09320

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.49052	0.47291	0.37757	0.37497	0.31905	0.13595	0.37757	0.47291	0.47291	0.47291	0.49221	0.49630
2	K06NDEPC	0.60805	0.59390	0.49613	0.51920	0.43235	0.20654	0.49613	0.59390	0.59390	0.59390	0.61106	0.64415
3	K08NDEPC	0.91254	0.87954	0.70303	0.56993	0.55172	0.20690	0.70303	0.87954	0.87954	0.87954	0.90497	0.86046
4	K10NDEPC	0.90581	0.89408	0.77655	0.73547	0.66775	0.33147	0.77655	0.89408	0.89408	0.89408	0.90708	0.92321
5	K12NDEPC	0.93230	0.92743	0.82992	0.78973	0.72801	0.38988	0.82992	0.92743	0.92743	0.92743	0.93530	0.95661
6	K14NDEPC	0.90008	0.91898	0.89554	0.91027	0.83656	0.52611	0.89554	0.91898	0.91898	0.91898	0.91067	0.97176
7	K16NDEPC	0.91079	0.93693	0.93967	0.93641	0.88819	0.58753	0.93967	0.93693	0.93693	0.93693	0.92238	0.97734
8	K20NDEPC	0.69148	0.75447	0.89860	0.96483	0.93883	0.77302	0.89860	0.75447	0.75447	0.75447	0.71397	0.81451
9	K24NDEPC	0.60174	0.67259	0.85814	0.91161	0.92261	0.81675	0.85814	0.67259	0.67259	0.67259	0.62531	0.71916
10	K28NDEPC	0.46412	0.54030	0.77144	0.79968	0.86727	0.86265	0.77144	0.54030	0.54030	0.54030	0.48763	0.56750
11	K32NDEPC	0.28757	0.36142	0.62087	0.61659	0.74406	0.86491	0.62087	0.36142	0.36142	0.36142	0.30861	0.36827
12	K36NDEPC	0.16833	0.23589	0.49821	0.47404	0.63281	0.83678	0.49821	0.23589	0.23589	0.23589	0.18641	0.23275
13	K40NDEPC	0.07826	0.13824	0.39293	0.35619	0.53188	0.79852	0.39293	0.13824	0.13824	0.13824	0.09330	0.13070
14	K46NDEPC	-0.10443	-0.06064	0.15411	0.10171	0.28743	0.64807	0.15411	-0.06064	-0.06064	-0.06064	-0.09274	-0.08177
15	K50NDEPC	-0.17733	-0.13881	0.04857	-0.00424	0.17315	0.55817	0.04857	-0.13881	-0.13881	-0.13881	-0.16401	-0.16468
16	K60NDEPC	-0.30184	-0.27276	-0.14450	-0.18638	-0.04623	0.34424	-0.14450	-0.27276	-0.27276	-0.27276	-0.28951	-0.30514
17	KSTNDEPC	-0.30184	-0.27276	-0.14450	-0.18638	-0.04623	0.34424	-0.14450	-0.27276	-0.27276	-0.27276	-0.28951	-0.30514

TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_WDADJ	FB_WDADJ	MA_WDADJ	AP_WDADJ	MY_WDADJ	JN_WDADJ	JL_WDADJ	AU_WDADJ	SP_WDADJ	OC_WDADJ	NO_WDADJ	DE_WDADJ
1	0.36867	0.28704	0.17644	0.17324	0.14135	0.06023	0.16728	0.27752	0.28413	0.28413	0.31151	0.39189
2	0.53214	0.41974	0.26691	0.27932	0.22304	0.10655	0.25594	0.40582	0.41549	0.41549	0.45031	0.59226
3	0.58465	0.79357	0.58746	0.47623	0.44208	0.16578	0.56332	0.82558	0.80335	0.80335	0.77410	0.49210
4	0.40009	0.66301	0.76388	0.70453	0.61337	0.30448	0.71331	0.70031	0.67441	0.67441	0.62392	0.33499
5	0.08212	0.42289	0.68443	0.65128	0.63555	0.34036	0.72451	0.47037	0.43740	0.43740	0.36484	-0.00828
6	0.07586	0.41622	0.73646	0.74857	0.72843	0.45811	0.77979	0.46335	0.43062	0.43062	0.35231	-0.01229
7	-0.12929	0.25317	0.66206	0.63984	0.65494	0.43324	0.69290	0.30690	0.26959	0.26959	0.18113	-0.24466
8	-0.08983	0.21120	0.62065	0.66640	0.69895	0.57551	0.66900	0.25423	0.22435	0.22435	0.14744	-0.19359
9	-0.08008	0.18656	0.59104	0.62786	0.68515	0.60654	0.63727	0.22697	0.19830	0.19830	0.12747	-0.17333
10	-0.06324	0.14848	0.52982	0.54922	0.64243	0.63901	0.57145	0.17939	0.15795	0.15795	0.09810	-0.13866
11	-0.04009	0.09840	0.42520	0.42227	0.54978	0.63907	0.45875	0.11910	0.10473	0.10473	0.06126	-0.09121
12	-0.03040	0.05638	0.32858	0.31264	0.45221	0.59796	0.35603	0.07015	0.06059	0.06059	0.03054	-0.06772
13	-0.01443	0.03262	0.25823	0.23408	0.37889	0.56884	0.27991	0.04070	0.03509	0.03509	0.01499	-0.03855
14	0.01926	-0.01431	0.10128	0.06684	0.20476	0.46166	0.10978	-0.01785	-0.01539	-0.01539	-0.01490	0.02412
15	0.03270	-0.03275	0.03192	-0.00279	0.12335	0.39762	0.03460	-0.04087	-0.03523	-0.03523	-0.02634	0.04857
16	0.05566	-0.06435	-0.09496	-0.12248	-0.03293	0.24522	-0.10294	-0.08030	-0.06923	-0.06923	-0.04650	0.09000
17	0.05566	-0.06435	-0.09496	-0.12248	-0.03293	0.24522	-0.10294	-0.08030	-0.06923	-0.06923	-0.04650	0.09000

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K0400DEPC	0.18672	0.05124	0.81766	0.70002	0.86072	0.92377	0.81766	0.05124	0.05124	0.05124	-0.02983	0.46278
2	K0600DEPC	0.08615	-0.03870	0.59576	0.46369	0.65350	0.98957	0.59576	-0.03870	-0.03870	-0.03870	-0.11716	0.39285
3	K0800DEPC	0.01538	-0.07826	0.40002	0.28700	0.45308	0.92926	0.40002	-0.07826	-0.07826	-0.07826	-0.15339	0.32119
4	K1000DEPC	0.13728	-0.08333	0.30886	0.20946	0.35640	0.84624	0.30886	-0.08333	-0.08333	-0.08333	-0.05636	0.41768
5	K1200DEPC	0.09122	-0.11951	0.21009	0.11939	0.25447	0.76180	0.21009	-0.11951	-0.11951	-0.11951	-0.08667	0.35879
6	K1400DEPC	0.21041	-0.13104	0.12013	0.04119	0.15938	0.63887	0.12013	-0.13104	-0.13104	-0.13104	0.00771	0.43640
7	K1600DEPC	0.03137	-0.17338	0.05945	-0.01746	0.09846	0.60280	0.05945	-0.17338	-0.17338	-0.17338	-0.12311	0.26427
8	K2000DEPC	0.13133	-0.18285	-0.02448	-0.09255	0.01119	0.50293	-0.02448	-0.18285	-0.18285	-0.18285	-0.04301	0.32485
9	K2400DEPC	0.87627	0.01930	-0.04713	-0.05513	-0.04305	-0.00557	-0.04713	0.01930	0.01930	0.01930	0.60064	0.82217
10	K2800DEPC	0.91888	0.06900	-0.00520	-0.00589	-0.00513	-0.01844	-0.00520	0.06900	0.06900	0.06900	0.65119	0.85263
11	K3200DEPC	0.94916	0.12215	0.09626	0.09413	0.09609	0.07381	0.09626	0.12215	0.12215	0.12215	0.67946	0.91319
12	K3600DEPC	0.95661	0.16125	0.20036	0.19255	0.20195	0.19401	0.20036	0.16125	0.16125	0.16125	0.68223	0.95757
13	K4000DEPC	0.94837	0.23570	0.35125	0.34205	0.35206	0.33469	0.35125	0.23570	0.23570	0.23570	0.68639	0.99369
14	K4600DEPC	0.66783	0.27260	0.62954	0.59155	0.64178	0.73318	0.62954	0.27260	0.27260	0.27260	0.45247	0.86838
15	K5000DEPC	0.93907	0.13488	0.19984	0.18414	0.20532	0.23663	0.19984	0.13488	0.13488	0.13488	0.65342	0.95604
16	K6000DEPC	0.81920	0.18221	0.41699	0.38108	0.43049	0.55057	0.41699	0.18221	0.18221	0.18221	0.54693	0.95360
17	K8TDDEPC	0.81920	0.18221	0.41699	0.38108	0.43049	0.55057	0.41699	0.18221	0.18221	0.18221	0.54693	0.95360

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.11586	0.02804	0.42094	0.36037	0.44311	0.44046	0.42094	0.02804	0.02804	0.04082	-0.01938	-0.01077
2	0.04712	-0.02231	0.32306	0.25144	0.35437	0.49700	0.32306	-0.02231	-0.02231	-0.03248	-0.08015	-0.05155
3	0.00668	-0.04861	0.23372	0.16769	0.26472	0.50287	0.23372	-0.04861	-0.04861	-0.07076	-0.11307	-0.09517
4	0.04675	-0.05486	0.19127	0.12971	0.22071	0.48538	0.19127	-0.05486	-0.05486	-0.07986	-0.04403	-0.18122
5	0.02619	-0.08120	0.13429	0.07631	0.16266	0.45100	0.13429	-0.08120	-0.08120	-0.11822	-0.06989	-0.18376
6	0.04615	-0.09256	0.07983	0.02737	0.10591	0.39320	0.07983	-0.09256	-0.09256	-0.12732	0.00646	-0.26692
7	0.00688	-0.12247	0.03950	-0.01160	0.06543	0.37100	0.03950	-0.12247	-0.12247	-0.16847	-0.10320	-0.16164
8	0.02805	-0.12958	-0.01632	-0.06170	0.00746	0.31054	-0.01632	-0.12958	-0.12958	-0.17706	-0.03617	-0.20144
9	0.18714	0.01368	-0.03142	-0.03675	-0.02870	-0.00344	-0.03142	0.01368	0.01368	0.01869	0.50516	-0.50983
10	-0.65501	0.06374	-0.00514	-0.00582	-0.00507	-0.01729	-0.00514	0.06374	0.06374	0.02990	0.47070	-1.68721
11	-1.24774	0.08370	0.07345	0.07183	0.07333	0.06306	0.07345	0.08370	0.08370	0.01048	0.29865	-2.61297
12	-1.25753	0.11049	0.15289	0.14693	0.15410	0.16575	0.15289	0.11049	0.11049	0.01384	0.29986	-2.73998
13	-1.24670	0.16150	0.26803	0.26100	0.26864	0.28595	0.26803	0.16150	0.16150	0.02023	0.30169	-2.84333
14	-0.87791	0.18678	0.48038	0.45139	0.48971	0.62641	0.48038	0.18678	0.18678	0.02340	0.19888	-2.68476
15	-1.23447	0.09241	0.15249	0.14051	0.15667	0.20216	0.15249	0.09241	0.09241	0.01158	0.28720	-2.73558
16	-1.08872	0.12380	0.31594	0.28873	0.32617	0.46764	0.31594	0.12380	0.12380	0.01412	0.23668	-2.74879
17	-1.08872	0.12380	0.31594	0.28873	0.32617	0.46764	0.31594	0.12380	0.12380	0.01412	0.23668	-2.74879

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.73725	0.51605	0.87050	0.69212	0.20475	0.31762	0.87050	0.51605	0.51605	0.51605	0.57174	0.75570
2	K06NDEPC	0.69577	0.42117	0.78741	0.57827	0.21212	0.17973	0.78741	0.42117	0.42117	0.42117	0.48836	0.72347
3	K08NDEPC	0.79186	0.55453	0.86425	0.68587	0.28946	0.24301	0.86425	0.55453	0.55453	0.55453	0.61601	0.81203
4	K10NDEPC	0.86031	0.68465	0.95432	0.79879	0.32831	0.34078	0.95432	0.68465	0.68465	0.68465	0.73429	0.86956
5	K12NDEPC	0.89078	0.79943	0.98297	0.90242	0.33032	0.46124	0.98297	0.79943	0.79943	0.79943	0.83135	0.88631
6	K14NDEPC	0.81535	0.61366	0.90793	0.75095	0.28620	0.31895	0.90793	0.61366	0.61366	0.61366	0.66754	0.82946
7	K16NDEPC	0.87685	0.78094	0.98347	0.89754	0.31136	0.47136	0.98347	0.78094	0.78094	0.78094	0.81322	0.87333
8	K20NDEPC	0.71370	0.79866	0.96721	0.98373	0.12221	0.78142	0.96721	0.79866	0.79866	0.79866	0.78628	0.68516
9	K24NDEPC	0.68171	0.75346	0.96372	0.96710	0.08626	0.80067	0.96372	0.75346	0.75346	0.75346	0.74270	0.65577
10	K28NDEPC	0.76428	0.62726	0.95092	0.82321	0.18476	0.49629	0.95092	0.62726	0.62726	0.62726	0.66439	0.76906
11	K32NDEPC	0.75126	0.59618	0.93501	0.79494	0.17800	0.46742	0.93501	0.59618	0.59618	0.59618	0.63698	0.75909
12	K36NDEPC	0.73835	0.59645	0.94010	0.80627	0.15779	0.50141	0.94010	0.59645	0.59645	0.59645	0.63383	0.74433
13	K40NDEPC	0.01714	0.26080	0.31481	0.44235	-0.20037	0.55685	0.31481	0.26080	0.26080	0.26080	0.19784	-0.01971
14	K46NDEPC	0.54691	0.52772	0.90405	0.83102	-0.04913	0.77082	0.90405	0.52772	0.52772	0.52772	0.53245	0.53726
15	K50NDEPC	0.01638	0.25974	0.31453	0.44196	-0.20050	0.55750	0.31453	0.25974	0.25974	0.25974	0.19683	-0.02041
16	K60NDEPC	0.01219	0.25390	0.31300	0.43977	-0.20120	0.56106	0.31300	0.25390	0.25390	0.25390	0.19125	-0.02425
17	K8TNDEPC	0.01219	0.25390	0.31300	0.43977	-0.20120	0.56106	0.31300	0.25390	0.25390	0.25390	0.19125	-0.02425

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.38410	0.26428	0.32602	0.28442	0.07563	0.11733	0.32602	0.26428	0.26428	0.26428	0.29280	0.41873
2	0.63973	0.38065	0.52043	0.41938	0.13828	0.11717	0.52043	0.38065	0.38065	0.38065	0.44137	0.70746
3	0.74334	0.51168	0.58319	0.50783	0.19266	0.16174	0.58319	0.51168	0.51168	0.51168	0.56841	0.81069
4	0.80759	0.63175	0.63047	0.59144	0.21851	0.22682	0.63047	0.63175	0.63175	0.63175	0.67755	0.86813
5	0.83620	0.73765	0.66330	0.66818	0.21986	0.30699	0.66330	0.73765	0.73765	0.73765	0.76711	0.88486
6	0.74780	0.57414	0.70673	0.64139	0.21973	0.24487	0.70673	0.57414	0.57414	0.57414	0.62456	0.78368
7	0.77514	0.70521	0.78896	0.79005	0.24637	0.37297	0.78896	0.70521	0.70521	0.70521	0.73436	0.71011
8	0.70078	0.79806	0.70786	0.78997	0.08822	0.56407	0.70786	0.79806	0.79806	0.79806	0.78568	0.62844
9	0.66148	0.74433	0.71331	0.78544	0.06297	0.58453	0.71331	0.74433	0.74433	0.74433	0.73370	0.59341
10	0.69448	0.58164	0.74598	0.70861	0.14296	0.38402	0.74598	0.58164	0.58164	0.58164	0.61607	0.64551
11	0.49216	0.40423	0.90393	0.74662	0.16973	0.44571	0.90393	0.40423	0.40423	0.40423	0.43189	0.43243
12	0.39492	0.33392	0.89010	0.68079	0.15167	0.48196	0.89010	0.33392	0.33392	0.33392	0.35485	0.32885
13	0.00828	0.13277	0.28638	0.35549	-0.18526	0.51486	0.28638	0.13277	0.13277	0.13277	0.10072	-0.00763
14	0.26429	0.26866	0.82241	0.66784	-0.04543	0.71269	0.82241	0.26866	0.26866	0.26866	0.27107	0.20786
15	0.00786	0.13144	0.28543	0.35410	-0.18494	0.51424	0.28543	0.13144	0.13144	0.13144	0.09961	-0.00783
16	0.00584	0.12811	0.28370	0.35181	-0.18537	0.51691	0.28370	0.12811	0.12811	0.12811	0.09649	-0.00926
17	0.00560	0.12330	0.27936	0.34513	-0.18262	0.50924	0.27936	0.12330	0.12330	0.12330	0.09287	-0.00877

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.75225	0.73552	0.26767	0.33386	0.20524	-0.03125	0.26767	0.73552	0.73552	0.73552	0.72457	0.73391
2	K06TDEPC	0.81603	0.77074	0.42499	0.49545	0.35915	0.10409	0.42499	0.77074	0.77074	0.77074	0.78197	0.82437
3	K08TDEPC	0.87851	0.83051	0.51483	0.58462	0.44947	0.17763	0.51483	0.83051	0.83051	0.83051	0.84677	0.89125
4	K10TDEPC	0.83308	0.75308	0.62886	0.69700	0.56540	0.30108	0.62886	0.75308	0.75308	0.75308	0.79557	0.87804
5	K12TDEPC	0.83518	0.74676	0.78347	0.84030	0.73010	0.47115	0.78347	0.74676	0.74676	0.74676	0.80510	0.89612
6	K14TDEPC	0.84212	0.75829	0.84269	0.89193	0.79552	0.54378	0.84269	0.75829	0.75829	0.75829	0.81853	0.90254
7	K16TDEPC	0.82514	0.75276	0.92706	0.95928	0.89390	0.67059	0.92706	0.75276	0.75276	0.75276	0.81456	0.88262
8	K20TDEPC	0.80461	0.73839	0.96374	0.98501	0.93910	0.74771	0.96374	0.73839	0.73839	0.73839	0.80059	0.85986
9	K24TDEPC	0.77907	0.71768	0.98161	0.99445	0.96370	0.79872	0.98161	0.71768	0.71768	0.71768	0.77992	0.83278
10	K28TDEPC	0.75155	0.69373	0.99064	0.99640	0.97835	0.83901	0.99064	0.69373	0.69373	0.69373	0.75608	0.80429
11	K32TDEPC	0.71099	0.65889	0.99576	0.99234	0.99101	0.88194	0.99576	0.65889	0.65889	0.65889	0.72073	0.76189
12	K36TDEPC	0.65456	0.60989	0.99119	0.97681	0.99554	0.92372	0.99119	0.60989	0.60989	0.60989	0.67047	0.70278
13	K40TDEPC	0.59269	0.55428	0.97573	0.95144	0.98829	0.95478	0.97573	0.55428	0.55428	0.55428	0.61362	0.63872
14	K46TDEPC	0.48854	0.45980	0.93387	0.89546	0.95828	0.98241	0.93387	0.45980	0.45980	0.45980	0.51638	0.53078
15	K50TDEPC	0.43331	0.40737	0.90673	0.86260	0.93593	0.96867	0.90673	0.40737	0.40737	0.40737	0.46325	0.47491
16	K60TDEPC	0.22676	0.21346	0.77775	0.71511	0.82296	0.96837	0.77775	0.21346	0.21346	0.21346	0.26385	0.26328
17	KGTTDEPC	0.22676	0.21346	0.77775	0.71511	0.82296	0.96837	0.77775	0.21346	0.21346	0.21346	0.26385	0.26328

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.52257	0.40572	0.12458	0.15903	0.09465	-0.01209	0.12658	0.40572	0.40572	0.40572	0.43262	0.56252
2	0.80025	0.60018	0.27924	0.33315	0.23381	0.05685	0.27924	0.60018	0.60018	0.60018	0.65911	0.75675
3	0.68351	0.80586	0.42150	0.48984	0.36461	0.12089	0.42150	0.80586	0.80586	0.80586	0.80419	0.58085
4	0.56153	0.71324	0.55868	0.63371	0.49770	0.22253	0.55868	0.71324	0.71324	0.71324	0.68445	0.47149
5	0.55276	0.70003	0.70243	0.77102	0.64859	0.35112	0.70243	0.70003	0.70003	0.70003	0.68422	0.46915
6	0.47388	0.65115	0.81150	0.87901	0.75905	0.43527	0.81150	0.65115	0.65115	0.65115	0.62590	0.37380
7	0.41874	0.61338	0.92706	0.93683	0.88570	0.55741	0.92706	0.61338	0.61338	0.61338	0.58418	0.31174
8	0.34883	0.55832	0.91600	0.91203	0.90162	0.65230	0.91600	0.55832	0.55832	0.55832	0.52329	0.23356
9	0.18964	0.43431	0.80794	0.79113	0.80360	0.78137	0.80794	0.43431	0.43431	0.43431	0.38234	0.05151
10	0.10906	0.36566	0.75013	0.72551	0.75197	0.81129	0.75013	0.36566	0.36566	0.36566	0.30676	-0.03749
11	0.02172	0.28736	0.67757	0.64460	0.68633	0.79654	0.67757	0.28736	0.28736	0.28736	0.22145	-0.13182
12	-0.02734	0.23097	0.62644	0.58608	0.64168	0.79707	0.62644	0.23097	0.23097	0.23097	0.16434	-0.17767
13	-0.03535	0.20205	0.60499	0.55920	0.62528	0.81437	0.60499	0.20205	0.20205	0.20205	0.14098	-0.17607
14	-0.03747	0.16138	0.56835	0.51582	0.59544	0.82860	0.56835	0.16138	0.16138	0.16138	0.11106	-0.15464
15	-0.03992	0.13798	0.54246	0.48777	0.57196	0.82538	0.54246	0.13798	0.13798	0.13798	0.09349	-0.14645
16	-0.02826	0.06679	0.44836	0.38843	0.48516	0.79091	0.44836	0.06679	0.06679	0.06679	0.04588	-0.09063
17	-0.02881	0.06638	0.44709	0.38723	0.48383	0.78960	0.44709	0.06638	0.06638	0.06638	0.04533	-0.09134

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.49052	0.47291	0.37757	0.37497	0.31905	0.13595	0.37757	0.47291	0.47291	0.47291	0.49221	0.49630
2	K06NDEPC	0.60805	0.59390	0.49613	0.51920	0.43235	0.20654	0.49613	0.59390	0.59390	0.59390	0.61106	0.64415
3	K08NDEPC	0.91254	0.87954	0.70303	0.56993	0.55172	0.20690	0.70303	0.87954	0.87954	0.87954	0.90497	0.86046
4	K10NDEPC	0.90581	0.89408	0.77655	0.73547	0.66775	0.33147	0.77655	0.89408	0.89408	0.89408	0.90708	0.92321
5	K12NDEPC	0.93230	0.92743	0.82992	0.78973	0.72801	0.38988	0.82992	0.92743	0.92743	0.92743	0.93530	0.95661
6	K14NDEPC	0.90008	0.91898	0.89554	0.91027	0.83656	0.52611	0.89554	0.91898	0.91898	0.91898	0.91067	0.97176
7	K16NDEPC	0.91079	0.93693	0.93967	0.93641	0.88819	0.58753	0.93967	0.93693	0.93693	0.93693	0.92238	0.97734
8	K20NDEPC	0.69148	0.75447	0.89860	0.96483	0.93883	0.77302	0.89860	0.75447	0.75447	0.75447	0.71397	0.81451
9	K24NDEPC	0.60174	0.67259	0.85814	0.91161	0.92261	0.81675	0.85814	0.67259	0.67259	0.67259	0.62531	0.71916
10	K28NDEPC	0.46412	0.54030	0.77144	0.79968	0.86727	0.86265	0.77144	0.54030	0.54030	0.54030	0.48763	0.56750
11	K32NDEPC	0.28757	0.36142	0.62087	0.61659	0.74406	0.86491	0.62087	0.36142	0.36142	0.36142	0.30861	0.36827
12	K36NDEPC	0.16833	0.23589	0.49821	0.47404	0.63281	0.83678	0.49821	0.23589	0.23589	0.23589	0.18641	0.23275
13	K40NDEPC	0.07826	0.13824	0.39293	0.35619	0.53188	0.79852	0.39293	0.13824	0.13824	0.13824	0.09330	0.13070
14	K46NDEPC	-0.10443	-0.06064	0.15411	0.10171	0.28743	0.64807	0.15411	-0.06064	-0.06064	-0.06064	-0.09274	-0.08177
15	K50NDEPC	-0.17733	-0.13881	0.04857	-0.00424	0.17315	0.55817	0.04857	-0.13881	-0.13881	-0.13881	-0.16401	-0.16468
16	K60NDEPC	-0.30184	-0.27276	-0.14450	-0.18638	-0.04623	0.34424	-0.14450	-0.27276	-0.27276	-0.27276	-0.28951	-0.30514
17	KGTNDEPC	-0.30184	-0.27276	-0.14450	-0.18638	-0.04623	0.34424	-0.14450	-0.27276	-0.27276	-0.27276	-0.28951	-0.30514

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.40788	0.41546	0.19538	0.22005	0.15885	0.06023	0.19538	0.41546	0.41546	0.41546	0.46701	0.25684
2	0.38879	0.58026	0.29893	0.35479	0.25066	0.10655	0.29893	0.58026	0.58026	0.58026	0.54702	0.17634
3	-0.10539	0.36159	0.65794	0.53496	0.49683	0.16578	0.65794	0.36159	0.36159	0.36159	0.25701	-0.58619
4	-0.38285	0.15961	0.71997	0.57608	0.64617	0.30448	0.71997	0.15961	0.15961	0.15961	0.02975	-0.99130
5	-0.90658	-0.21777	0.56740	0.40053	0.53394	0.34036	0.56740	-0.21777	-0.21777	-0.21777	-0.38684	-1.69439
6	-0.88057	-0.21987	0.60992	0.45896	0.61144	0.45811	0.60992	-0.21987	-0.21987	-0.21987	-0.38102	-1.72852
7	-1.21139	-0.47193	0.49361	0.30673	0.51606	0.43324	0.49361	-0.47193	-0.47193	-0.47193	-0.64956	-2.17458
8	-0.90676	-0.36941	0.47949	0.32511	0.55297	0.57551	0.47949	-0.36941	-0.36941	-0.36941	-0.49178	-1.79293
9	-0.79204	-0.33181	0.45603	0.30492	0.54148	0.60654	0.45603	-0.33181	-0.33181	-0.33181	-0.43322	-1.58754
10	-0.61318	-0.26855	0.40827	0.26551	0.50718	0.63901	0.40827	-0.26855	-0.26855	-0.26855	-0.33978	-1.25630
11	-0.38135	-0.18098	0.32723	0.20319	0.43357	0.63907	0.32723	-0.18098	-0.18098	-0.18098	-0.21627	-0.81756
12	-0.23401	-0.12948	0.24845	0.14097	0.35147	0.59796	0.24845	-0.12948	-0.12948	-0.12948	-0.14033	-0.53563
13	-0.10925	-0.07649	0.19492	0.10486	0.29407	0.56884	0.19492	-0.07649	-0.07649	-0.07649	-0.07068	-0.30175
14	0.14579	0.03356	0.07645	0.02994	0.15892	0.46166	0.07645	0.03356	0.03356	0.03356	0.07026	0.18878
15	0.24756	0.07681	0.02410	-0.00125	0.09574	0.39762	0.02410	0.07681	0.07681	0.07681	0.12426	0.38020
16	0.42139	0.15093	-0.07168	-0.05487	-0.02556	0.24522	-0.07168	0.15093	0.15093	0.15093	0.21933	0.70448
17	0.42139	0.15093	-0.07168	-0.05487	-0.02556	0.24522	-0.07168	0.15093	0.15093	0.15093	0.21933	0.70448

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K04DVEPC	0.16580	0.36842	-0.12026	-0.00516	-0.09350	-0.03498	-0.12026	0.36842	0.36842	0.36842	0.33545	0.00236
2	K06DVEPC	0.43701	0.39966	0.04399	0.29290	0.05536	0.12351	0.04399	0.39966	0.39966	0.39966	0.34150	0.27539
3	K08DVEPC	0.62496	0.42209	0.35754	0.55365	0.30952	0.24660	0.35754	0.42209	0.42209	0.42209	0.37182	0.50312
4	K10DVEPC	0.74173	0.45556	0.63788	0.67662	0.55568	0.33545	0.63788	0.45556	0.45556	0.45556	0.41967	0.66602
5	K12DVEPC	0.83484	0.49367	0.80317	0.72692	0.73727	0.39048	0.80317	0.49367	0.49367	0.49367	0.46950	0.81260
6	K14DVEPC	0.93904	0.55695	0.85450	0.66590	0.86696	0.51353	0.85450	0.55695	0.55695	0.55695	0.54964	0.97022
7	K16DVEPC	0.95634	0.55826	0.84148	0.59389	0.91257	0.60528	0.84148	0.55826	0.55826	0.55826	0.57149	0.94649
8	K20DVEPC	0.68046	0.20501	0.85733	0.82563	0.81406	0.27391	0.85733	0.20501	0.20501	0.20501	0.25311	0.81063
9	K24DVEPC	0.94546	0.80243	0.65136	0.33956	0.79219	0.81100	0.65136	0.80243	0.80243	0.80243	0.82352	0.79514
10	K28DVEPC	0.91388	0.84503	0.56765	0.20365	0.73732	0.88083	0.56765	0.84503	0.84503	0.84503	0.86501	0.72451
11	K32DVEPC	0.88310	0.84872	0.54886	0.15407	0.72877	0.91804	0.54886	0.84872	0.84872	0.84872	0.86377	0.68694
12	K36DVEPC	0.85129	0.86287	0.51018	0.10552	0.70621	0.93939	0.51018	0.86287	0.86287	0.86287	0.85019	0.64598
13	K40DVEPC	0.82420	0.85712	0.46460	0.06735	0.66624	0.94483	0.46460	0.85712	0.85712	0.85712	0.83261	0.60979
14	K46DVEPC	0.80203	0.84202	0.40974	0.03348	0.61202	0.93920	0.40974	0.84202	0.84202	0.84202	0.81384	0.57567
15	K50DVEPC	0.79483	0.82939	0.39694	0.03194	0.59753	0.93993	0.39694	0.82939	0.82939	0.82939	0.80186	0.56791
16	K60DVEPC	0.80238	0.82409	0.37787	-0.00006	0.57570	0.90778	0.37787	0.82409	0.82409	0.82409	0.79913	0.56847
17	KGTDVEPC	0.80238	0.82409	0.37787	-0.00006	0.57570	0.90778	0.37787	0.82409	0.82409	0.82409	0.79913	0.56847

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.11781	0.19423	-0.05920	-0.00254	-0.04528	-0.01668	-0.05920	0.19069	0.19423	0.19185	0.17686	0.00219
2	0.32707	0.22195	0.02281	0.15188	0.02824	0.06203	0.02281	0.21790	0.22195	0.21925	0.18965	0.26950
3	0.50396	0.25256	0.19976	0.30933	0.17012	0.13345	0.19976	0.24795	0.25256	0.24946	0.22248	0.47573
4	0.63395	0.28892	0.37774	0.40068	0.32372	0.19240	0.37774	0.28365	0.28892	0.28538	0.26615	0.58770
5	0.73650	0.32316	0.49092	0.44431	0.44334	0.23117	0.49092	0.31726	0.32316	0.31920	0.30734	0.68782
6	0.86122	0.37902	0.54297	0.42313	0.54196	0.31606	0.54297	0.37211	0.37902	0.37438	0.37405	0.77693
7	0.87709	0.37991	0.53470	0.37738	0.57047	0.37253	0.53470	0.37298	0.37991	0.37525	0.38891	0.75793
8	0.62609	0.13997	0.54654	0.52633	0.51054	0.16913	0.54654	0.13741	0.13997	0.13825	0.17281	0.64598
9	0.86992	0.54785	0.41524	0.21647	0.49682	0.50076	0.41524	0.53785	0.54785	0.54113	0.56224	0.63364
10	0.55084	0.81394	0.54953	0.19715	0.70221	0.82592	0.54953	0.82993	0.81394	0.82468	0.83319	0.12533
11	0.25860	0.62232	0.44852	0.12590	0.60952	0.78434	0.44852	0.64194	0.62232	0.63550	0.63336	-0.15955
12	0.24928	0.63270	0.41692	0.08623	0.59066	0.80258	0.41692	0.65264	0.63270	0.64610	0.62340	-0.15004
13	0.24135	0.62848	0.37967	0.05504	0.55723	0.80723	0.37967	0.64829	0.62848	0.64179	0.61051	-0.14163
14	0.23486	0.61741	0.33484	0.02736	0.51188	0.80242	0.33484	0.63687	0.61741	0.63049	0.59675	-0.13371
15	0.23275	0.60815	0.32437	0.02610	0.49976	0.80304	0.32437	0.62732	0.60815	0.62103	0.58796	-0.13191
16	0.22900	0.59972	0.30685	-0.00005	0.47858	0.77105	0.30685	0.61885	0.59972	0.61257	0.58156	-0.13756
17	0.22900	0.59972	0.30685	-0.00005	0.47858	0.77105	0.30685	0.61885	0.59972	0.61257	0.58156	-0.13756

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_IVEPC	FB_IVEPC	MA_IVEPC	AP_IVEPC	MY_IVEPC	JN_IVEPC	JL_IVEPC	AU_IVEPC	SP_IVEPC	OC_IVEPC	NO_IVEPC	DE_IVEPC
1	K04IVEPC	0.27785	-0.09859	-0.25174	-0.19948	-0.32592	-0.44154	-0.25174	-0.09859	-0.09859	-0.09859	-0.01509	0.32491
2	K06IVEPC	0.48996	0.10203	-0.14649	-0.13148	-0.30559	-0.54837	-0.14649	0.10203	0.10203	0.10203	0.22141	0.54131
3	K08IVEPC	0.64097	0.17341	-0.00574	-0.09354	-0.20517	-0.46590	-0.00574	0.17341	0.17341	0.17341	0.32467	0.72393
4	K10IVEPC	0.81947	0.42121	0.15653	0.00633	-0.07943	-0.47640	0.15653	0.42121	0.42121	0.42121	0.57261	0.88391
5	K12IVEPC	0.94290	0.70244	0.35924	0.17463	0.12938	-0.41064	0.35924	0.70244	0.70244	0.70244	0.82105	0.96432
6	K14IVEPC	0.85552	0.71425	0.31085	0.29040	0.10429	-0.44487	0.31085	0.71425	0.71425	0.71425	0.79797	0.84866
7	K16IVEPC	0.86558	0.86547	0.53490	0.49270	0.34541	-0.26455	0.53490	0.86547	0.86547	0.86547	0.90945	0.83400
8	K20IVEPC	0.79625	0.94472	0.57781	0.45539	0.45109	-0.11261	0.57781	0.94472	0.94472	0.94472	0.94931	0.72071
9	K24IVEPC	0.63679	0.91407	0.69148	0.61846	0.59454	0.07967	0.69148	0.91407	0.91407	0.91407	0.86292	0.55451
10	K28IVEPC	0.43305	0.78344	0.78897	0.76857	0.72960	0.29308	0.78897	0.78344	0.78344	0.78344	0.69030	0.36211
11	K32IVEPC	0.42700	0.71868	0.93249	0.89189	0.88073	0.46664	0.93249	0.71868	0.71868	0.71868	0.64713	0.37306
12	K36IVEPC	0.20554	0.55349	0.89946	0.92003	0.89617	0.58578	0.89946	0.55349	0.55349	0.55349	0.44881	0.15287
13	K40IVEPC	0.07293	0.41081	0.89931	0.93226	0.93922	0.72830	0.89931	0.41081	0.41081	0.41081	0.30506	0.02498
14	K46IVEPC	0.09884	0.41731	0.93143	0.92079	0.98143	0.78636	0.93143	0.41731	0.41731	0.41731	0.32197	0.05120
15	K50IVEPC	0.10769	0.41458	0.93508	0.89781	0.99080	0.80986	0.93508	0.41458	0.41458	0.41458	0.32463	0.06160
16	K60IVEPC	0.15092	0.42426	0.94368	0.85808	0.98391	0.81667	0.94368	0.42426	0.42426	0.42426	0.35067	0.11170
17	KGTIVEPC	0.15092	0.42426	0.94368	0.85808	0.98391	0.81667	0.94368	0.42426	0.42426	0.42426	0.35067	0.11170

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_IVADJ	FB_IVADJ	MA_IVADJ	AP_IVADJ	MY_IVADJ	JN_IVADJ	JL_IVADJ	AU_IVADJ	SP_IVADJ	OC_IVADJ	NO_IVADJ	DE_IVADJ
1	0.14229	-0.04833	-0.09299	-0.07369	-0.12040	-0.16311	-0.09299	-0.04651	-0.04833	-0.04805	-0.00740	0.16735
2	0.44284	0.08827	-0.09550	-0.08571	-0.19922	-0.35749	-0.09550	0.08494	0.08827	0.08776	0.19155	0.49203
3	0.59144	0.15316	-0.00382	-0.06226	-0.13655	-0.31009	-0.00382	0.14739	0.15316	0.15228	0.28677	0.67181
4	0.75615	0.37203	0.10418	0.00421	-0.05287	-0.31708	0.10418	0.35801	0.37203	0.36989	0.50575	0.82027
5	0.87004	0.62043	0.23910	0.11623	0.08611	-0.27331	0.23910	0.59705	0.62043	0.61686	0.72519	0.89489
6	0.80043	0.70079	0.23866	0.22296	0.08007	-0.34155	0.23866	0.70030	0.70079	0.70498	0.78292	0.78885
7	0.78164	0.82217	0.42325	0.38985	0.27331	-0.20933	0.42325	0.85641	0.82217	0.82741	0.86395	0.74790
8	0.79565	0.90499	0.41710	0.32815	0.32562	-0.08129	0.41710	0.87088	0.90499	0.89977	0.90938	0.71604
9	0.62907	0.88557	0.50482	0.45151	0.43405	0.05816	0.50482	0.85220	0.88557	0.88046	0.83602	0.54458
10	0.40155	0.76242	0.61048	0.59469	0.56454	0.22677	0.61048	0.77415	0.76242	0.76706	0.67178	0.33355
11	0.28952	0.52794	0.88918	0.85047	0.83982	0.44496	0.88918	0.56221	0.52794	0.53318	0.47537	0.25012
12	0.11507	0.34397	0.86456	0.88433	0.86140	0.56305	0.86456	0.37273	0.34397	0.34837	0.27892	0.08432
13	0.03713	0.23535	0.83149	0.86195	0.86839	0.67338	0.83149	0.25744	0.23535	0.23873	0.17475	0.01250
14	0.05032	0.23907	0.86119	0.85135	0.90742	0.72706	0.86119	0.26151	0.23907	0.24250	0.18445	0.02563
15	0.05450	0.23630	0.86252	0.82814	0.91392	0.74702	0.86252	0.25864	0.23630	0.23972	0.18503	0.03065
16	0.07615	0.24121	0.86942	0.79055	0.90649	0.75241	0.86942	0.26409	0.24121	0.24471	0.19937	0.05540
17	0.07329	0.23351	0.85653	0.77883	0.89305	0.74125	0.85653	0.25669	0.23351	0.23706	0.19301	0.05327

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K04TVEPC	0.56581	0.80023	0.42349	0.46252	0.44443	0.55954	0.42349	0.80023	0.80023	0.80023	0.71065	0.48557
2	K06TVEPC	0.76079	0.88399	0.39477	0.47290	0.37590	0.40051	0.39477	0.88399	0.88399	0.88399	0.83867	0.71499
3	K08TVEPC	0.82980	0.89570	0.39593	0.48722	0.35971	0.34023	0.39593	0.89570	0.89570	0.89570	0.87376	0.80047
4	K10TVEPC	0.78811	0.89653	0.40859	0.49022	0.38484	0.39682	0.40859	0.89653	0.89653	0.89653	0.85761	0.74579
5	K12TVEPC	0.86909	0.91162	0.43172	0.52631	0.38838	0.34760	0.43172	0.91162	0.91162	0.91162	0.90016	0.84381
6	K14TVEPC	0.79209	0.90183	0.41963	0.50067	0.39612	0.40813	0.41963	0.90183	0.90183	0.90183	0.86267	0.74868
7	K16TVEPC	0.79447	0.90770	0.43532	0.51489	0.41277	0.42591	0.43532	0.90770	0.90770	0.90770	0.86749	0.74890
8	K20TVEPC	0.99510	0.93331	0.62513	0.72298	0.55214	0.41545	0.62513	0.93331	0.93331	0.93331	0.97164	0.98392
9	K24TVEPC	0.98925	0.95255	0.68673	0.77600	0.62059	0.49332	0.68673	0.95255	0.95255	0.95255	0.98124	0.96469
10	K28TVEPC	0.96870	0.97012	0.75679	0.83355	0.70104	0.59152	0.75679	0.97012	0.97012	0.97012	0.98462	0.92660
11	K32TVEPC	0.95247	0.97046	0.78477	0.85519	0.73454	0.63401	0.78477	0.97046	0.97046	0.97046	0.97818	0.90283
12	K36TVEPC	0.94428	0.95516	0.81813	0.88395	0.76763	0.65757	0.81813	0.95516	0.95516	0.95516	0.96618	0.89327
13	K40TVEPC	0.91415	0.93052	0.86697	0.92254	0.82093	0.70875	0.86697	0.93052	0.93052	0.93052	0.93966	0.85685
14	K46TVEPC	0.87892	0.89629	0.90806	0.95174	0.86794	0.75023	0.90806	0.89629	0.89629	0.89629	0.90507	0.81739
15	K50TVEPC	0.86218	0.88664	0.91922	0.95743	0.88425	0.76999	0.91922	0.88664	0.88664	0.88664	0.89217	0.79815
16	K60TVEPC	0.79911	0.80297	0.94061	0.96607	0.91106	0.79473	0.94061	0.80297	0.80297	0.80297	0.81630	0.73694
17	KGTTVEPC	0.79911	0.80297	0.94061	0.96607	0.91106	0.79473	0.94061	0.80297	0.80297	0.80297	0.81630	0.73694

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.35234	0.41643	0.17088	0.19072	0.17312	0.21647	0.17079	0.40449	0.41643	0.41043	0.36982	0.32276
2	0.66881	0.64941	0.22487	0.27528	0.20670	0.21874	0.22476	0.63079	0.64941	0.64006	0.61611	0.67091
3	0.75063	0.81993	0.28102	0.35341	0.24647	0.23154	0.28088	0.79642	0.81993	0.80812	0.79984	0.66499
4	0.63944	0.89053	0.31468	0.38584	0.28613	0.29303	0.31454	0.86499	0.89053	0.87770	0.85187	0.54535
5	0.69565	0.90940	0.33556	0.41805	0.29142	0.25904	0.33540	0.88764	0.90940	0.90068	0.89797	0.60719
6	0.56363	0.83267	0.35032	0.42714	0.31924	0.32669	0.35015	0.86051	0.83267	0.84664	0.79651	0.46773
7	0.52598	0.80052	0.37739	0.45616	0.34545	0.35403	0.37721	0.82962	0.80052	0.81514	0.76506	0.42828
8	0.59285	0.77142	0.56879	0.67225	0.48498	0.36244	0.56852	0.80282	0.77142	0.78718	0.80310	0.49307
9	0.42077	0.65166	0.67279	0.74288	0.61126	0.48260	0.67312	0.68760	0.65166	0.66970	0.67128	0.30794
10	0.32666	0.59223	0.69821	0.74933	0.67294	0.57198	0.69860	0.63088	0.59223	0.61164	0.60108	0.20862
11	0.22338	0.50915	0.67181	0.71063	0.65791	0.57262	0.67224	0.55021	0.50915	0.52977	0.51320	0.10430
12	0.16025	0.44939	0.66601	0.69659	0.65642	0.56741	0.66646	0.49128	0.44939	0.47042	0.45457	0.04139
13	0.14048	0.42533	0.69677	0.71721	0.69377	0.60452	0.69726	0.46650	0.42533	0.44600	0.42951	0.02505
14	0.12163	0.39823	0.72079	0.73027	0.72519	0.63277	0.72130	0.43821	0.39823	0.41830	0.40213	0.01055
15	0.10738	0.38369	0.72161	0.72586	0.73117	0.64282	0.72194	0.42353	0.38369	0.40370	0.38608	-0.00149
16	0.07624	0.32793	0.72044	0.71378	0.73673	0.64909	0.72099	0.36458	0.32793	0.34633	0.33358	-0.02429
17	0.07450	0.32647	0.71911	0.71238	0.73549	0.64801	0.71965	0.36315	0.32647	0.34489	0.33189	-0.02601

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_UVEPC	FB_UVEPC	MA_UVEPC	AP_UVEPC	MY_UVEPC	JN_UVEPC	JL_UVEPC	AU_UVEPC	SP_UVEPC	OC_UVEPC	NO_UVEPC	DE_UVEPC
1	K04UVEPC	0.09034	0.17751	0.55570	0.45275	0.61999	0.88035	0.55570	0.17751	0.17751	0.17751	0.15191	0.18047
2	K08UVEPC	0.39488	0.49722	0.40822	0.27401	0.46941	0.87047	0.40822	0.49722	0.49722	0.49722	0.47394	0.41099
3	K08UVEPC	0.95339	0.98669	0.30239	0.15675	0.31405	0.51337	0.30239	0.98669	0.98669	0.98669	0.98063	0.89950
4	K10UVEPC	0.93735	0.96488	0.31718	0.16643	0.33200	0.49950	0.31718	0.96488	0.96488	0.96488	0.95656	0.88497
5	K12UVEPC	0.96055	0.97399	0.33604	0.19136	0.34397	0.46499	0.33604	0.97399	0.97399	0.97399	0.97067	0.91497
6	K14UVEPC	0.96149	0.97095	0.36021	0.21758	0.36681	0.47093	0.36021	0.97095	0.97095	0.97095	0.96908	0.92356
7	K16UVEPC	0.97469	0.98813	0.31063	0.17158	0.31429	0.42944	0.31063	0.98813	0.98813	0.98813	0.98491	0.92464
8	K20UVEPC	0.00641	-0.09697	0.80948	0.89092	0.77030	0.33837	0.80948	-0.09697	-0.09697	-0.09697	-0.05946	0.28857
9	K24UVEPC	0.08716	-0.01264	0.88809	0.94956	0.85168	0.43131	0.88809	-0.01264	-0.01264	-0.01264	0.02525	0.37147
10	K28UVEPC	0.03568	-0.06363	0.86631	0.93540	0.82650	0.43444	0.86631	-0.06363	-0.06363	-0.06363	-0.02357	0.32263
11	K32UVEPC	0.03820	-0.05838	0.86824	0.93432	0.82879	0.45549	0.86824	-0.05838	-0.05838	-0.05838	-0.01849	0.32418
12	K36UVEPC	0.06251	-0.02319	0.87781	0.92777	0.84201	0.51020	0.87781	-0.02319	-0.02319	-0.02319	0.01507	0.33641
13	K40UVEPC	0.05034	-0.03183	0.88319	0.93018	0.85000	0.52788	0.88319	-0.03183	-0.03183	-0.03183	0.00522	0.32428
14	K46UVEPC	0.05680	-0.01683	0.87747	0.91435	0.84812	0.56265	0.87747	-0.01683	-0.01683	-0.01683	0.01784	0.32230
15	K50UVEPC	0.05984	-0.00681	0.87307	0.90158	0.84756	0.58819	0.87307	-0.00681	-0.00681	-0.00681	0.02562	0.31816
16	K60UVEPC	0.06105	0.01337	0.87413	0.88042	0.86122	0.66074	0.87413	0.01337	0.01337	0.01337	0.03897	0.30429
17	KGTUVEPC	0.06105	0.01337	0.87413	0.88042	0.86122	0.66074	0.87413	0.01337	0.01337	0.01337	0.03897	0.30429

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - MED AN YEAR

OBS	JA_UVADJ	FB_UVADJ	MA_UVADJ	AP_UVADJ	MY_UVADJ	JN_UVADJ	JL_UVADJ	AU_UVADJ	SP_UVADJ	OC_UVADJ	NO_UVADJ	DE_UVADJ
1	0.08928	0.12428	0.27668	0.22542	0.28644	0.39002	0.25674	0.11234	0.12428	0.11868	0.10636	0.16724
2	0.33532	0.40535	0.23667	0.15886	0.25253	0.44906	0.21961	0.36641	0.40535	0.38707	0.38637	0.30833
3	0.20259	0.72600	0.27230	0.14115	0.26243	0.41135	0.25268	0.84400	0.72600	0.78034	0.71956	0.05291
4	-0.04609	0.52915	0.30693	0.16105	0.31803	0.45882	0.30384	0.66368	0.52915	0.59231	0.52458	-0.19942
5	-0.49388	0.21331	0.24645	0.14035	0.28367	0.40593	0.27713	0.37993	0.21331	0.29154	0.21258	-0.66822
6	-0.49917	0.20921	0.26328	0.15903	0.30165	0.41006	0.29622	0.37563	0.20921	0.28734	0.20880	-0.67950
7	-0.79599	0.00467	0.18048	0.09969	0.21475	0.31666	0.21225	0.19404	0.00467	0.09358	0.00465	-0.97903
8	-0.00513	-0.00155	0.47679	0.52476	0.53204	0.25192	0.55910	-0.02003	-0.00155	-0.01022	-0.00095	-0.30059
9	-0.07017	-0.00016	0.52122	0.55730	0.58659	0.32030	0.61167	-0.00258	-0.00016	-0.00130	0.00033	-0.38862
10	-0.02887	-0.00064	0.50662	0.54702	0.56763	0.32181	0.59497	-0.01280	-0.00064	-0.00635	-0.00024	-0.33898
11	-0.03107	-0.00041	0.50593	0.54443	0.56759	0.33655	0.59461	-0.01159	-0.00041	-0.00566	-0.00013	-0.34207
12	-0.05423	0.00073	0.48755	0.51530	0.55533	0.36459	0.57894	-0.00380	0.00073	-0.00140	-0.00047	-0.37477
13	-0.04393	0.00111	0.48831	0.51429	0.55861	0.37605	0.58042	-0.00511	0.00111	-0.00181	-0.00018	-0.36301
14	-0.04956	0.00059	0.48515	0.50554	0.55737	0.40081	0.57666	-0.00270	0.00059	-0.00096	-0.00062	-0.36080
15	-0.05221	0.00024	0.48272	0.49848	0.55701	0.41901	0.57377	-0.00109	0.00024	-0.00039	-0.00089	-0.35617
16	-0.05326	-0.00047	0.48331	0.48678	0.56598	0.47069	0.57447	0.00215	-0.00047	0.00076	-0.00136	-0.34064
17	-0.05326	-0.00047	0.48331	0.48678	0.56598	0.47069	0.57447	0.00215	-0.00047	0.00076	-0.00136	-0.34064

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K04DVEPC	0.16580	0.36842	-0.12026	-0.00516	-0.09350	-0.03498	-0.12026	0.36842	0.36842	0.36842	0.33545	0.00236
2	K06DVEPC	0.43701	0.39966	0.04399	0.29290	0.05536	0.12351	0.04399	0.39966	0.39966	0.39966	0.34150	0.27539
3	K08DVEPC	0.62496	0.42209	0.35754	0.55365	0.30952	0.24660	0.35754	0.42209	0.42209	0.42209	0.37182	0.50312
4	K10DVEPC	0.74173	0.45556	0.63788	0.67662	0.55568	0.33545	0.63788	0.45556	0.45556	0.45556	0.41967	0.66602
5	K12DVEPC	0.83484	0.49367	0.80317	0.72692	0.73727	0.39048	0.80317	0.49367	0.49367	0.49367	0.46950	0.81260
6	K14DVEPC	0.93904	0.55695	0.85450	0.66590	0.86696	0.51353	0.85450	0.55695	0.55695	0.55695	0.54964	0.97022
7	K16DVEPC	0.95634	0.55826	0.84148	0.59389	0.91257	0.60528	0.84148	0.55826	0.55826	0.55826	0.57149	0.94649
8	K20DVEPC	0.68046	0.20501	0.85733	0.82563	0.81406	0.27391	0.85733	0.20501	0.20501	0.20501	0.25311	0.81063
9	K24DVEPC	0.94546	0.80243	0.65136	0.33956	0.79219	0.81100	0.65136	0.80243	0.80243	0.80243	0.82352	0.79514
10	K28DVEPC	0.91388	0.84503	0.56765	0.20365	0.73732	0.88083	0.56765	0.84503	0.84503	0.84503	0.86501	0.72651
11	K32DVEPC	0.88310	0.84872	0.54886	0.15407	0.72877	0.91804	0.54886	0.84872	0.84872	0.84872	0.86377	0.68694
12	K36DVEPC	0.85129	0.86287	0.51018	0.10552	0.70621	0.93939	0.51018	0.86287	0.86287	0.86287	0.85019	0.64598
13	K40DVEPC	0.82620	0.85712	0.46460	0.06735	0.66624	0.94483	0.46460	0.85712	0.85712	0.85712	0.83261	0.60979
14	K46DVEPC	0.80203	0.84202	0.40974	0.03348	0.61202	0.93920	0.40974	0.84202	0.84202	0.84202	0.81384	0.57567
15	K50DVEPC	0.79483	0.82939	0.39694	0.03194	0.59753	0.93993	0.39694	0.82939	0.82939	0.82939	0.80186	0.56791
16	K60DVEPC	0.80238	0.82409	0.37787	-0.00006	0.57570	0.90778	0.37787	0.82409	0.82409	0.82409	0.79913	0.56847
17	K8TDVEPC	0.80238	0.82409	0.37787	-0.00006	0.57570	0.90778	0.37787	0.82409	0.82409	0.82409	0.79913	0.56847

TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR 3

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.08864	0.19069	-0.05734	-0.00250	-0.04458	-0.01668	-0.05734	0.19069	0.19069	0.19069	0.17363	0.00127
2	0.24608	0.21790	0.02209	0.14946	0.02781	0.06203	0.02209	0.21790	0.21790	0.21790	0.18619	0.15628
3	0.37917	0.24795	0.19348	0.30439	0.16749	0.13345	0.19348	0.24795	0.24795	0.24795	0.21842	0.30762
4	0.47698	0.28365	0.36587	0.39428	0.31872	0.19240	0.36587	0.28365	0.28365	0.28365	0.26130	0.43163
5	0.55414	0.31726	0.47549	0.43722	0.43648	0.23117	0.47549	0.31726	0.31726	0.31726	0.30173	0.54356
6	0.64798	0.37211	0.52591	0.41638	0.53358	0.31606	0.52591	0.37211	0.37211	0.37211	0.36722	0.67470
7	0.65991	0.37298	0.51790	0.37135	0.56165	0.37253	0.51790	0.37298	0.37298	0.37298	0.38182	0.65819
8	0.47107	0.13741	0.52936	0.51793	0.50265	0.16913	0.52936	0.13741	0.13741	0.13741	0.16965	0.56554
9	0.65452	0.53785	0.40219	0.21301	0.48914	0.50076	0.40219	0.53785	0.53785	0.53785	0.55199	0.55474
10	0.86702	0.82993	0.53226	0.19400	0.69135	0.82592	0.53226	0.82993	0.82993	0.82993	0.84955	0.68144
11	0.63189	0.64194	0.46892	0.12881	0.62263	0.78434	0.46892	0.64194	0.64194	0.64194	0.65333	0.48467
12	0.60913	0.65264	0.43588	0.08822	0.60336	0.80258	0.43588	0.65264	0.65264	0.65264	0.64305	0.45577
13	0.58975	0.64829	0.39694	0.05631	0.56921	0.80723	0.39694	0.64829	0.64829	0.64829	0.62976	0.43024
14	0.57389	0.63687	0.35006	0.02799	0.52289	0.80242	0.35006	0.63687	0.63687	0.63687	0.61556	0.40616
15	0.56873	0.62732	0.33913	0.02671	0.51051	0.80304	0.33913	0.62732	0.62732	0.62732	0.60650	0.40069
16	0.56965	0.61885	0.32095	-0.00005	0.48899	0.77105	0.32095	0.61885	0.61885	0.61885	0.60011	0.39788
17	0.56965	0.61885	0.32095	-0.00005	0.48899	0.77105	0.32095	0.61885	0.61885	0.61885	0.60011	0.39788

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K04NVEPC	0.27785	-0.09859	-0.25174	-0.19948	-0.32592	-0.44154	-0.25174	-0.09859	-0.09859	-0.09859	-0.01509	0.32491
2	K06NVEPC	0.48998	0.10203	-0.14669	-0.13148	-0.30559	-0.54837	-0.14669	0.10203	0.10203	0.10203	0.22141	0.54131
3	K08NVEPC	0.64097	0.17341	-0.00574	-0.09354	-0.20517	-0.46590	-0.00574	0.17341	0.17341	0.17341	0.32467	0.72393
4	K10NVEPC	0.81947	0.42121	0.15653	0.00633	-0.07943	-0.47640	0.15653	0.42121	0.42121	0.42121	0.57261	0.88391
5	K12NVEPC	0.94290	0.70244	0.35924	0.17463	0.12938	-0.41064	0.35924	0.70244	0.70244	0.70244	0.82105	0.96432
6	K14NVEPC	0.85552	0.71425	0.31085	0.29040	0.10429	-0.44487	0.31085	0.71425	0.71425	0.71425	0.79797	0.84866
7	K16NVEPC	0.86558	0.86547	0.53490	0.49270	0.34541	-0.26455	0.53490	0.86547	0.86547	0.86547	0.90945	0.83400
8	K20NVEPC	0.79625	0.94472	0.57781	0.45459	0.45109	-0.11261	0.57781	0.94472	0.94472	0.94472	0.94931	0.72071
9	K24NVEPC	0.63679	0.91407	0.69148	0.61846	0.59454	0.07967	0.69148	0.91407	0.91407	0.91407	0.86292	0.55451
10	K28NVEPC	0.43305	0.78344	0.78897	0.76857	0.72960	0.29308	0.78897	0.78344	0.78344	0.78344	0.69030	0.36211
11	K32NVEPC	0.42700	0.71868	0.93249	0.89189	0.88073	0.46664	0.93249	0.71868	0.71868	0.71868	0.64713	0.37306
12	K36NVEPC	0.20554	0.55349	0.89946	0.92003	0.89617	0.58578	0.89946	0.55349	0.55349	0.55349	0.44881	0.15287
13	K40NVEPC	0.07293	0.41081	0.89931	0.93226	0.93922	0.72830	0.89931	0.41081	0.41081	0.41081	0.30504	0.02498
14	K46NVEPC	0.09884	0.41731	0.93143	0.92079	0.98143	0.78636	0.93143	0.41731	0.41731	0.41731	0.32197	0.05120
15	K50NVEPC	0.10769	0.41458	0.93508	0.89781	0.99080	0.80986	0.93508	0.41458	0.41458	0.41458	0.32463	0.06160
16	K60NVEPC	0.15092	0.42426	0.94368	0.85808	0.98391	0.81667	0.94368	0.42426	0.42426	0.42426	0.35067	0.11170
17	K8TNVEPC	0.15092	0.42426	0.94368	0.85808	0.98391	0.81667	0.94368	0.42426	0.42426	0.42426	0.35067	0.11170

RANDALL TOPWIDTH ADJUSTED CORR. COEFF. OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_IVADJ	FB_IVADJ	MA_IVADJ	AP_IVADJ	MY_IVADJ	JN_IVADJ	JL_IVADJ	AU_IVADJ	SP_IVADJ	OC_IVADJ	NO_IVADJ	DE_IVADJ
1	0.13798	-0.06519	-0.09299	-0.07369	-0.12060	-0.16311	-0.09299	-0.06519	-0.06519	-0.06519	-0.00712	0.16300
2	0.42941	0.08253	-0.09550	-0.08571	-0.19922	-0.35749	-0.09550	0.08253	0.08253	0.08253	0.18433	0.47925
3	0.57350	0.14319	-0.00382	-0.06226	-0.13655	-0.31009	-0.00382	0.14319	0.14319	0.14319	0.27596	0.65436
4	0.73321	0.34782	0.10418	0.00421	-0.05287	-0.31708	0.10418	0.34782	0.34782	0.34782	0.48669	0.79896
5	0.84364	0.58005	0.23910	0.11623	0.08611	-0.27331	0.23910	0.58005	0.58005	0.58005	0.69786	0.87165
6	0.82806	0.68036	0.23866	0.22296	0.08007	-0.34155	0.23866	0.68036	0.68036	0.68036	0.78238	0.81244
7	0.81045	0.84963	0.42325	0.38985	0.27331	-0.20933	0.42325	0.84963	0.84963	0.84963	0.89993	0.77180
8	0.77268	0.84609	0.41710	0.32815	0.32562	-0.08129	0.41710	0.84609	0.84609	0.84609	0.87511	0.70654
9	0.62496	0.82793	0.50482	0.45151	0.43405	0.05816	0.50482	0.82793	0.82793	0.82793	0.80451	0.54978
10	0.41565	0.75211	0.61048	0.59469	0.56454	0.22677	0.61048	0.75211	0.75211	0.75211	0.68211	0.34370
11	0.30664	0.58713	0.88918	0.85047	0.83982	0.64496	0.88918	0.58713	0.58713	0.58713	0.50623	0.26301
12	0.12405	0.39363	0.86456	0.88433	0.86140	0.56305	0.86456	0.39363	0.39363	0.39363	0.30223	0.09007
13	0.04042	0.27350	0.83149	0.86195	0.86839	0.67338	0.83149	0.27350	0.27350	0.27350	0.19116	0.01348
14	0.05479	0.27783	0.86119	0.85135	0.90742	0.72706	0.86119	0.27783	0.27783	0.27783	0.20177	0.02763
15	0.05938	0.27489	0.86252	0.82814	0.91392	0.74702	0.86252	0.27489	0.27489	0.27489	0.20252	0.03305
16	0.08299	0.28073	0.86942	0.79055	0.90649	0.75241	0.86942	0.28073	0.28073	0.28073	0.21828	0.05977
17	0.08022	0.27354	0.85653	0.77883	0.89305	0.74125	0.85653	0.27354	0.27354	0.27354	0.21216	0.05769

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K04TVEPC	0.56581	0.80023	0.42349	0.46252	0.44443	0.55954	0.42349	0.80023	0.80023	0.80023	0.71065	0.68557
2	K06TVEPC	0.76079	0.88399	0.39477	0.47290	0.37590	0.40051	0.39477	0.88399	0.88399	0.88399	0.83867	0.71499
3	K08TVEPC	0.82980	0.89570	0.39593	0.48722	0.35971	0.34023	0.39593	0.89570	0.89570	0.89570	0.87376	0.80047
4	K10TVEPC	0.78811	0.89653	0.40859	0.49022	0.38484	0.39682	0.40859	0.89653	0.89653	0.89653	0.85761	0.74579
5	K12TVEPC	0.86909	0.91162	0.43172	0.52631	0.38838	0.34760	0.43172	0.91162	0.91162	0.91162	0.90016	0.84381
6	K14TVEPC	0.79209	0.90183	0.41963	0.50067	0.39612	0.40813	0.41963	0.90183	0.90183	0.90183	0.86267	0.74868
7	K16TVEPC	0.79447	0.90770	0.43532	0.51489	0.41277	0.42591	0.43532	0.90770	0.90770	0.90770	0.86749	0.74890
8	K20TVEPC	0.99510	0.93331	0.62513	0.72298	0.55214	0.41545	0.62513	0.93331	0.93331	0.93331	0.97164	0.98392
9	K24TVEPC	0.98925	0.95255	0.68673	0.77600	0.62059	0.49332	0.68673	0.95255	0.95255	0.95255	0.98124	0.96469
10	K28TVEPC	0.96870	0.97012	0.75679	0.83355	0.70104	0.59152	0.75679	0.97012	0.97012	0.97012	0.98462	0.92660
11	K32TVEPC	0.95247	0.97046	0.78477	0.85519	0.73454	0.63401	0.78477	0.97046	0.97046	0.97046	0.97818	0.90283
12	K36TVEPC	0.94428	0.95516	0.81813	0.88395	0.76763	0.65757	0.81813	0.95516	0.95516	0.95516	0.96618	0.89327
13	K40TVEPC	0.91415	0.93052	0.86697	0.92254	0.82093	0.70875	0.86697	0.93052	0.93052	0.93052	0.93966	0.85685
14	K46TVEPC	0.87892	0.89629	0.90806	0.95174	0.86794	0.75023	0.90806	0.89629	0.89629	0.89629	0.90507	0.81739
15	K50TVEPC	0.86218	0.88664	0.91922	0.95743	0.88425	0.76999	0.91922	0.88664	0.88664	0.88664	0.89217	0.79815
16	K60TVEPC	0.79911	0.80297	0.94061	0.96607	0.91106	0.79473	0.94061	0.80297	0.80297	0.80297	0.81630	0.73694
17	K8TTVEPC	0.79911	0.80297	0.94061	0.96607	0.91106	0.79473	0.94061	0.80297	0.80297	0.80297	0.81630	0.73694

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.30033	0.37215	0.16384	0.18016	0.17194	0.21647	0.16384	0.38352	0.38352	0.38352	0.35921	0.26103
2	0.57008	0.58650	0.21561	0.26004	0.20530	0.21874	0.21561	0.59808	0.59808	0.59808	0.59845	0.54259
3	0.77478	0.74423	0.26944	0.33384	0.24480	0.23154	0.26944	0.75512	0.75512	0.75512	0.77691	0.75694
4	0.77774	0.80960	0.30173	0.36449	0.28419	0.29303	0.30173	0.82014	0.82014	0.82014	0.82744	0.72633
5	0.84956	0.83094	0.32174	0.39491	0.28944	0.25904	0.32174	0.84161	0.84161	0.84161	0.87648	0.81384
6	0.71430	0.88403	0.33589	0.40350	0.31707	0.32669	0.33589	0.89424	0.89424	0.89424	0.82314	0.66466
7	0.68291	0.86012	0.36185	0.43091	0.34310	0.35403	0.36185	0.88074	0.88074	0.88074	0.79287	0.63284
8	0.79914	0.83651	0.54537	0.63504	0.48169	0.36244	0.54537	0.85798	0.85798	0.85798	0.83579	0.77514
9	0.65074	0.72811	0.67181	0.76433	0.60711	0.48260	0.67181	0.75072	0.75072	0.75072	0.70830	0.61806
10	0.56445	0.67537	0.73179	0.80013	0.67789	0.57198	0.73179	0.69877	0.69877	0.69877	0.64031	0.52316
11	0.47163	0.59847	0.70878	0.76597	0.66341	0.57262	0.70878	0.62231	0.62231	0.62231	0.55458	0.42970
12	0.41539	0.54112	0.70596	0.75589	0.66239	0.56741	0.70596	0.56485	0.56485	0.56485	0.49694	0.37517
13	0.38965	0.51562	0.73948	0.77964	0.70021	0.60452	0.73948	0.53880	0.53880	0.53880	0.47108	0.34802
14	0.36318	0.48604	0.76589	0.79521	0.73205	0.63277	0.76589	0.50843	0.50843	0.50843	0.44250	0.32120
15	0.34609	0.47131	0.76741	0.79168	0.73821	0.64282	0.76741	0.49352	0.49352	0.49352	0.42617	0.30410
16	0.30093	0.40873	0.76823	0.78122	0.74410	0.64909	0.76823	0.42894	0.42894	0.42894	0.37063	0.26225
17	0.29944	0.40737	0.76696	0.77990	0.74286	0.64801	0.76696	0.42759	0.42759	0.42759	0.36918	0.26086

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_WVEPC	FB_WVEPC	MA_WVEPC	AP_WVEPC	MY_WVEPC	JN_WVEPC	JL_WVEPC	AU_WVEPC	SP_WVEPC	OC_WVEPC	NO_WVEPC	DE_WVEPC
1	K04WVEPC	0.09034	0.17751	0.55570	0.45275	0.61999	0.88035	0.55570	0.17751	0.17751	0.17751	0.15191	0.18047
2	K06WVEPC	0.39488	0.49722	0.40822	0.27401	0.46941	0.87047	0.40822	0.49722	0.49722	0.49722	0.47394	0.41099
3	K08WVEPC	0.95339	0.98669	0.30239	0.15675	0.31405	0.51337	0.30239	0.98669	0.98669	0.98669	0.98063	0.89950
4	K10WVEPC	0.93735	0.96488	0.31718	0.16643	0.33200	0.49950	0.31718	0.96488	0.96488	0.96488	0.95656	0.88497
5	K12WVEPC	0.96055	0.97399	0.33604	0.19136	0.34397	0.46499	0.33604	0.97399	0.97399	0.97399	0.97067	0.91497
6	K14WVEPC	0.96149	0.97095	0.36021	0.21758	0.36681	0.47093	0.36021	0.97095	0.97095	0.97095	0.96908	0.92356
7	K16WVEPC	0.97469	0.98813	0.31063	0.17158	0.31429	0.42944	0.31063	0.98813	0.98813	0.98813	0.98491	0.92644
8	K20WVEPC	0.00641	-0.09697	0.80948	0.89092	0.77030	0.33837	0.80948	-0.09697	-0.09697	-0.09697	-0.05946	0.28857
9	K24WVEPC	0.08716	-0.01264	0.88809	0.94956	0.85168	0.43131	0.88809	-0.01264	-0.01264	-0.01264	0.02525	0.37147
10	K28WVEPC	0.03568	-0.06363	0.86631	0.93540	0.82650	0.43444	0.86631	-0.06363	-0.06363	-0.06363	-0.02357	0.32263
11	K32WVEPC	0.03820	-0.05838	0.86824	0.93432	0.82879	0.45549	0.86824	-0.05838	-0.05838	-0.05838	-0.01849	0.32618
12	K36WVEPC	0.06251	-0.02319	0.87781	0.92777	0.84201	0.51020	0.87781	-0.02319	-0.02319	-0.02319	0.01507	0.33641
13	K40WVEPC	0.05034	-0.03183	0.88319	0.93018	0.85000	0.52788	0.88319	-0.03183	-0.03183	-0.03183	0.00522	0.32628
14	K46WVEPC	0.05680	-0.01683	0.87747	0.91435	0.84812	0.56265	0.87747	-0.01683	-0.01683	-0.01683	0.01784	0.32230
15	K50WVEPC	0.05984	-0.00681	0.87307	0.90158	0.84756	0.58819	0.87307	-0.00681	-0.00681	-0.00681	0.02562	0.31816
16	K60WVEPC	0.06105	0.01337	0.87413	0.88042	0.86122	0.66074	0.87413	0.01337	0.01337	0.01337	0.03897	0.30429
17	KGTWVEPC	0.06105	0.01337	0.87413	0.88042	0.86122	0.66074	0.87413	0.01337	0.01337	0.01337	0.03897	0.30429

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_WVADJ	FB_WVADJ	MA_WVADJ	AP_WVADJ	MY_WVADJ	JN_WVADJ	JL_WVADJ	AU_WVADJ	SP_WVADJ	OC_WVADJ	NO_WVADJ	DE_WVADJ
1	0.06789	0.10774	0.25674	0.20918	0.27467	0.39002	0.24619	0.10417	0.10665	0.10665	0.09614	0.14250
2	0.34558	0.35141	0.21961	0.14741	0.24216	0.44906	0.21059	0.33976	0.34785	0.34785	0.34926	0.37788
3	0.61082	0.89024	0.25268	0.13098	0.25164	0.41135	0.24229	0.92615	0.90121	0.90121	0.83882	0.51443
4	0.41403	0.71551	0.30384	0.15943	0.30496	0.45882	0.29135	0.75577	0.72782	0.72782	0.65795	0.32111
5	0.08461	0.44413	0.27713	0.15781	0.30029	0.40593	0.29336	0.49398	0.45936	0.45936	0.37863	-0.00792
6	0.08104	0.43976	0.29622	0.17893	0.31940	0.41006	0.31365	0.48956	0.45498	0.45498	0.37491	-0.01168
7	-0.13836	0.26701	0.21225	0.11724	0.23175	0.31666	0.22906	0.32367	0.28432	0.28432	0.19341	-0.23147
8	-0.00083	-0.02715	0.55910	0.61535	0.57348	0.25192	0.60265	-0.03268	-0.02884	-0.02884	-0.01228	-0.06859
9	-0.01160	-0.00351	0.61167	0.65400	0.63248	0.32030	0.65952	-0.00423	-0.00373	-0.00373	0.00515	-0.08953
10	-0.00486	-0.01749	0.59497	0.64243	0.61223	0.32181	0.64172	-0.02112	-0.01860	-0.01860	-0.00474	-0.07883
11	-0.00533	-0.01590	0.59461	0.63987	0.61238	0.33655	0.64153	-0.01924	-0.01692	-0.01692	-0.00367	-0.08029
12	-0.01129	-0.00554	0.57894	0.61189	0.60170	0.36459	0.62729	-0.00690	-0.00596	-0.00596	0.00247	-0.09788
13	-0.00928	-0.00751	0.58042	0.61130	0.60551	0.37605	0.62915	-0.00937	-0.00808	-0.00808	0.00084	-0.09564
14	-0.01047	-0.00397	0.57666	0.60090	0.60417	0.40081	0.62508	-0.00496	-0.00427	-0.00427	0.00286	-0.09506
15	-0.01104	-0.00161	0.57377	0.59251	0.60377	0.41901	0.62195	-0.00201	-0.00173	-0.00173	0.00412	-0.09384
16	-0.01126	0.00315	0.57447	0.57860	0.61350	0.47069	0.62270	0.00393	0.00339	0.00339	0.00626	-0.08975
17	-0.01126	0.00315	0.57447	0.57860	0.61350	0.47069	0.62270	0.00393	0.00339	0.00339	0.00626	-0.08975

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K04DVEPC	0.16580	0.36842	-0.12026	-0.00516	-0.09350	-0.03498	-0.12026	0.36842	0.36842	0.36842	0.33545	0.00236
2	K06DVEPC	0.43701	0.39966	0.04399	0.29290	0.05536	0.12351	0.04399	0.39966	0.39966	0.39966	0.36150	0.27539
3	K08DVEPC	0.62696	0.42209	0.35754	0.55365	0.30952	0.24660	0.35754	0.42209	0.42209	0.42209	0.37182	0.50312
4	K10DVEPC	0.74173	0.45556	0.63788	0.67662	0.55568	0.33545	0.63788	0.45556	0.45556	0.45556	0.41967	0.66602
5	K12DVEPC	0.83484	0.49367	0.80317	0.72692	0.73727	0.39048	0.80317	0.49367	0.49367	0.49367	0.46950	0.81260
6	K14DVEPC	0.93904	0.55695	0.85450	0.66590	0.86696	0.51353	0.85450	0.55695	0.55695	0.55695	0.54964	0.97022
7	K16DVEPC	0.95634	0.55826	0.84148	0.59389	0.91257	0.60528	0.84148	0.55826	0.55826	0.55826	0.57149	0.94649
8	K20DVEPC	0.68046	0.20501	0.85733	0.82563	0.81406	0.27391	0.85733	0.20501	0.20501	0.20501	0.25311	0.81063
9	K24DVEPC	0.94546	0.80243	0.65136	0.33956	0.79219	0.81100	0.65136	0.80243	0.80243	0.80243	0.82352	0.79514
10	K28DVEPC	0.91388	0.84503	0.56765	0.20365	0.73732	0.88083	0.56765	0.84503	0.84503	0.84503	0.86501	0.72451
11	K32DVEPC	0.88310	0.84872	0.54886	0.15407	0.72877	0.91804	0.54886	0.84872	0.84872	0.84872	0.86377	0.68694
12	K36DVEPC	0.85129	0.86287	0.51018	0.10552	0.70621	0.93939	0.51018	0.86287	0.86287	0.86287	0.85019	0.64598
13	K40DVEPC	0.82420	0.85712	0.46460	0.06735	0.66624	0.94483	0.46460	0.85712	0.85712	0.85712	0.83261	0.60979
14	K46DVEPC	0.80203	0.84202	0.40974	0.03348	0.61202	0.93920	0.40974	0.84202	0.84202	0.84202	0.81384	0.57367
15	K50DV[illegible]	0.79483	0.82939	0.39694	0.03194	0.59753	0.93993	0.39694	0.82939	0.82939	0.82939	0.80186	0.56791
16	K60DVE[illegible]	0.80238	0.82409	0.37787	-0.00006	0.57570	0.90778	0.37787	0.82409	0.82409	0.82409	0.79913	0.56847
17	KGTDVEPC	0.80238	0.82409	0.37787	-0.00006	0.57570	0.90778	0.37787	0.82409	0.82409	0.82409	0.79913	0.56847

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.16288	0.28161	-0.06191	-0.00266	-0.04814	-0.01468	-0.06191	0.28161	0.28161	0.29358	0.21786	-0.00005
2	0.23900	0.23057	0.02586	0.15883	0.03002	0.06203	0.02586	0.23057	0.23057	0.33538	0.23362	-0.05614
3	0.27145	0.26214	0.20890	0.32348	0.18084	0.13345	0.20890	0.26214	0.26214	0.38164	0.27487	-0.14907
4	0.25259	0.29988	0.39503	0.41902	0.34412	0.19240	0.39503	0.29988	0.29988	0.43658	0.32787	-0.28896
5	0.23973	0.33542	0.51339	0.46465	0.47127	0.23117	0.51339	0.33542	0.33542	0.48832	0.37860	-0.41619
6	0.20597	0.39341	0.56782	0.44250	0.57611	0.31606	0.56782	0.39341	0.39341	0.54117	0.44077	-0.59343
7	0.20976	0.39433	0.55917	0.39465	0.60642	0.37253	0.55917	0.39433	0.39433	0.54244	0.47909	-0.57891
8	0.14532	0.14528	0.57155	0.55042	0.54271	0.16913	0.57155	0.14528	0.14528	0.19852	0.21287	-0.58267
9	0.28192	0.56864	0.43424	0.22638	0.52813	0.50076	0.43424	0.56864	0.56864	0.77702	0.69261	-0.49307
10	-0.65145	0.78069	0.56062	0.20113	0.72819	0.82592	0.56062	0.78069	0.78069	0.36618	0.62525	-1.43369
11	-1.16090	0.58152	0.41881	0.11756	0.55609	0.78434	0.41881	0.58152	0.58152	0.07285	0.37966	-1.96560
12	-1.11908	0.59122	0.38950	0.08052	0.53888	0.80258	0.38950	0.59122	0.59122	0.07406	0.37369	-1.84839
13	-1.08347	0.58727	0.35452	0.05139	0.50838	0.80725	0.35452	0.58727	0.58727	0.07357	0.36897	-1.74484
14	-1.05433	0.57693	0.31265	0.02555	0.46701	0.80242	0.31265	0.57693	0.57693	0.07227	0.35772	-1.64720
15	-1.04486	0.56828	0.30288	0.02437	0.45595	0.80304	0.30288	0.56828	0.56828	0.07119	0.35245	-1.62501
16	-1.04634	0.55993	0.28630	-0.00004	0.43619	0.77105	0.28630	0.55993	0.55993	0.06387	0.34582	-1.63865
17	-1.04634	0.55993	0.28630	-0.00004	0.43619	0.77105	0.28630	0.55993	0.55993	0.06387	0.34582	-1.63865

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_IVEPC	FB_IVEPC	MA_IVEPC	AP_IVEPC	MY_IVEPC	JN_IVEPC	JL_IVEPC	AU_IVEPC	SP_IVEPC	OC_IVEPC	NO_IVEPC	DE_IVEPC
1	K04IVEPC	0.27785	-0.09859	-0.25174	-0.19948	-0.32592	-0.44154	-0.25174	-0.09859	-0.09859	-0.09859	-0.01509	0.32491
2	K08IVEPC	0.48998	0.10203	-0.14649	-0.13148	-0.30559	-0.54837	-0.14649	0.10203	0.10203	0.10203	0.22141	0.56131
3	K12IVEPC	0.64097	0.17341	-0.00574	-0.09354	-0.20517	-0.46590	-0.00574	0.17341	0.17341	0.17341	0.32467	0.72395
4	K16IVEPC	0.81947	0.42121	0.15653	0.00633	-0.07943	-0.47640	0.15653	0.42121	0.42121	0.42121	0.57261	0.88391
5	K20IVEPC	0.94290	0.70244	0.35924	0.17463	0.12938	-0.41064	0.35924	0.70244	0.70244	0.70244	0.82105	0.96432
6	K24IVEPC	0.85552	0.71425	0.31085	0.29040	0.18429	-0.44487	0.31085	0.71425	0.71425	0.71425	0.79797	0.84866
7	K28IVEPC	0.86558	0.86547	0.53490	0.49270	0.34541	-0.26455	0.53490	0.86547	0.86547	0.86547	0.90945	0.83400
8	K32IVEPC	0.79625	0.94472	0.57781	0.45459	0.45109	-0.11261	0.57781	0.94472	0.94472	0.94472	0.94931	0.72071
9	K36IVEPC	0.63679	0.91407	0.69148	0.61846	0.59454	0.07967	0.69148	0.91407	0.91407	0.91407	0.86292	0.55451
10	K40IVEPC	0.43305	0.78344	0.78897	0.76857	0.72960	0.29308	0.78897	0.78344	0.78344	0.78344	0.69030	0.36211
11	K44IVEPC	0.42700	0.71868	0.93249	0.89189	0.88073	0.46664	0.93249	0.71868	0.71868	0.71868	0.64713	0.37306
12	K48IVEPC	0.20554	0.55349	0.89946	0.92003	0.89617	0.58578	0.89946	0.55349	0.55349	0.55349	0.44881	0.15287
13	K50IVEPC	0.07293	0.41081	0.89931	0.93226	0.93922	0.72830	0.89931	0.41081	0.41081	0.41081	0.30504	0.02498
14	K56IVEPC	0.09884	0.41731	0.93143	0.92079	0.98143	0.78636	0.93143	0.41731	0.41731	0.41731	0.32197	0.05120
15	K50IVEPC	0.10769	0.41458	0.93508	0.89781	0.99080	0.80986	0.93508	0.41458	0.41458	0.41458	0.32463	0.06160
16	K60IVEPC	0.15092	0.42426	0.94368	0.85808	0.98391	0.81667	0.94368	0.42426	0.42426	0.42426	0.35067	0.11170
17	KGTIVEPC	0.15092	0.42426	0.94368	0.85808	0.98391	0.81667	0.94368	0.42426	0.42426	0.42426	0.35067	0.11170

RANDALL TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_IVADJ	FB_IVADJ	MA_IVADJ	AP_IVADJ	MY_IVADJ	JN_IVADJ	JL_IVADJ	AU_IVADJ	SP_IVADJ	OC_IVADJ	NO_IVADJ	DE_IVADJ
1	0.14476	-0.05049	-0.09428	-0.08198	-0.12040	-0.16311	-0.09428	-0.05049	-0.05049	-0.05049	-0.00773	0.18003
2	0.45052	0.09222	-0.09682	-0.09535	-0.19922	-0.35749	-0.09682	0.09222	0.09222	0.09222	0.20011	0.52933
3	0.60170	0.16001	-0.00387	-0.06926	-0.13655	-0.31009	-0.00387	0.16001	0.16001	0.16001	0.29958	0.72275
4	0.76926	0.38866	0.10562	0.00469	-0.05287	-0.31708	0.10562	0.38866	0.38866	0.38866	0.52836	0.88246
5	0.88513	0.64817	0.24241	0.12930	0.08611	-0.27331	0.24241	0.64817	0.64817	0.64817	0.75761	0.96274
6	0.78464	0.66826	0.24196	0.24803	0.08007	-0.34155	0.24196	0.66826	0.66826	0.66826	0.74659	0.71997
7	0.76518	0.78155	0.42911	0.43370	0.27331	-0.20933	0.42911	0.78155	0.78155	0.78155	0.82126	0.67814
8	0.78183	0.94401	0.42288	0.36505	0.32562	-0.08129	0.42288	0.94401	0.94401	0.94401	0.94859	0.66105
9	0.61790	0.90299	0.51181	0.50229	0.43405	0.05816	0.51181	0.90299	0.90299	0.90299	0.85246	0.50179
10	0.39350	0.72647	0.61894	0.66158	0.58454	0.22677	0.61894	0.72647	0.72647	0.72647	0.64010	0.30393
11	0.27973	0.48729	0.90150	0.83767	0.83982	0.44496	0.90150	0.48729	0.48729	0.48729	0.43877	0.21252
12	0.10994	0.30987	0.85162	0.77685	0.86140	0.56305	0.85162	0.30987	0.30987	0.30987	0.25126	0.06754
13	0.03524	0.20914	0.81810	0.74921	0.86839	0.67338	0.81810	0.20914	0.20914	0.20914	0.15530	0.00966
14	0.04776	0.21245	0.84731	0.73999	0.90742	0.72706	0.84731	0.21245	0.21245	0.21245	0.16391	0.01981
15	0.05171	0.20980	0.84857	0.71934	0.91392	0.74702	0.84857	0.20980	0.20980	0.20980	0.16428	0.02363
16	0.07223	0.21406	0.85533	0.69[illegible]6	0.90649	0.75241	0.85533	0.21406	0.21406	0.21406	0.17693	0.04266
17	0.06932	0.20602	0.84226	0.6[illegible]2	0.89305	0.74125	0.8422[illegible]	0.20602	0.20602	0.20602	0.17029	0.04038

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K04TVEPC	0.56581	0.80023	0.42349	0.46252	0.44443	0.55954	0.42349	0.80023	0.80023	0.80023	0.71065	0.48557
2	K06TVEPC	0.76079	0.88399	0.39477	0.47290	0.37590	0.40051	0.39477	0.88399	0.88399	0.88399	0.83867	0.71499
3	K08TVEPC	0.82980	0.89570	0.39593	0.48722	0.35971	0.34023	0.39593	0.89570	0.89570	0.89570	0.87376	0.80047
4	K10TVEPC	0.78811	0.89653	0.40859	0.49022	0.38484	0.39682	0.40859	0.89653	0.89653	0.89653	0.85761	0.76579
5	K12TVEPC	0.86909	0.91162	0.43172	0.52631	0.38838	0.34760	0.43172	0.91162	0.91162	0.91162	0.90016	0.84381
6	K14TVEPC	0.79209	0.90185	0.41963	0.50067	0.39612	0.40813	0.41963	0.90185	0.90185	0.90185	0.86267	0.74868
7	K16TVEPC	0.79447	0.90770	0.43532	0.51489	0.41277	0.42591	0.43532	0.90770	0.90770	0.90770	0.86749	0.74890
8	K20TVEPC	0.99510	0.93331	0.62513	0.72298	0.55214	0.41545	0.62513	0.93331	0.93331	0.93331	0.97164	0.98392
9	K24TVEPC	0.98925	0.95255	0.68673	0.77600	0.62059	0.49332	0.68673	0.95255	0.95255	0.95255	0.98126	0.96469
10	K28TVEPC	0.96870	0.97012	0.75679	0.83355	0.70104	0.59152	0.75679	0.97012	0.97012	0.97012	0.98462	0.92660
11	K32TVEPC	0.95267	0.97046	0.78477	0.85519	0.73454	0.63401	0.78477	0.97046	0.97046	0.97046	0.97818	0.90283
12	K36TVEPC	0.94428	0.95516	0.81813	0.88395	0.76763	0.65757	0.81813	0.95516	0.95516	0.95516	0.96618	0.89327
13	K40TVEPC	0.91415	0.93052	0.86697	0.92254	0.82093	0.70875	0.86697	0.93052	0.93052	0.93052	0.93966	0.85685
14	K46TVEPC	0.87892	0.89629	0.90806	0.95174	0.86794	0.75023	0.90806	0.89629	0.89629	0.89629	0.90507	0.81739
15	K50TVEPC	0.86218	0.88664	0.91922	0.95743	0.88425	0.76999	0.91922	0.88664	0.88664	0.88664	0.89217	0.79815
16	K60TVEPC	0.79911	0.80297	0.94061	0.96607	0.91106	0.79473	0.94061	0.80297	0.80297	0.80297	0.81630	0.73694
17	KBTTVEPC	0.79911	0.80297	0.94061	0.96607	0.91106	0.79473	0.94061	0.80297	0.80297	0.80297	0.81630	0.73694

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.39305	0.44141	0.19711	0.22031	0.20496	0.21647	0.19711	0.44141	0.44141	0.44141	0.42431	0.37218
2	0.74608	0.68837	0.25939	0.31799	0.24472	0.21874	0.25939	0.68837	0.68837	0.68837	0.70690	0.65634
3	0.64561	0.86912	0.32415	0.40824	0.29180	0.23154	0.32415	0.86912	0.86912	0.86912	0.82983	0.52169
4	0.53121	0.84910	0.36299	0.44571	0.33876	0.29303	0.36299	0.84910	0.84910	0.84910	0.73783	0.40047
5	0.57520	0.85457	0.38707	0.48291	0.34502	0.25904	0.38707	0.85457	0.85457	0.85457	0.76501	0.44176
6	0.44573	0.77441	0.40409	0.49342	0.37796	0.32669	0.40409	0.77441	0.77441	0.77441	0.65965	0.31008
7	0.40317	0.73963	0.43532	0.50284	0.40898	0.35403	0.43532	0.73963	0.73963	0.73963	0.62214	0.26452
8	0.43141	0.70570	0.59417	0.66941	0.53010	0.36244	0.59417	0.70570	0.70570	0.70570	0.63510	0.26726
9	0.24080	0.57645	0.56523	0.61734	0.51749	0.48260	0.56523	0.57645	0.57645	0.57645	0.48103	0.05967
10	0.14057	0.51135	0.57305	0.60694	0.53883	0.57198	0.57305	0.51135	0.51135	0.51135	0.39949	-0.04319
11	0.02910	0.42325	0.53400	0.55551	0.50871	0.57262	0.53400	0.42325	0.42325	0.42325	0.30056	-0.15620
12	-0.03943	0.36173	0.51706	0.53037	0.49478	0.56741	0.51706	0.36173	0.36173	0.36173	0.23682	-0.22582
13	-0.05452	0.33919	0.53755	0.54222	0.51939	0.60452	0.53755	0.33919	0.33919	0.33919	0.21588	-0.23351
14	-0.06741	0.31457	0.55264	0.54824	0.53930	0.63277	0.55264	0.31457	0.31457	0.31457	0.19467	-0.23815
15	-0.07944	0.30031	0.54993	0.54139	0.54038	0.64282	0.54993	0.30031	0.30031	0.30031	0.18005	-0.24613
16	-0.09960	0.25125	0.54225	0.52474	0.53710	0.66909	0.54225	0.25125	0.25125	0.25125	0.14194	-0.25368
17	-0.10154	0.24970	0.54071	0.52313	0.53563	0.64801	0.54071	0.24970	0.24970	0.24970	0.14023	-0.25567

RANDALL UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIESFOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K04NVEPC	0.09034	0.17751	0.55570	0.45275	0.61999	0.88035	0.55570	0.17751	0.17751	0.17751	0.15191	0.18047
2	K06NVEPC	0.39488	0.49722	0.40822	0.27401	0.46941	0.87047	0.40822	0.49722	0.49722	0.49722	0.47394	0.41099
3	K08NVEPC	0.95339	0.98669	0.30239	0.15675	0.31405	0.51337	0.30239	0.98669	0.98669	0.98669	0.98063	0.89950
4	K10NVEPC	0.93735	0.96488	0.31718	0.16643	0.33200	0.49950	0.31718	0.96488	0.96488	0.96488	0.95656	0.88497
5	K12NVEPC	0.96055	0.97399	0.33604	0.19136	0.34397	0.46499	0.33604	0.97399	0.97399	0.97399	0.97067	0.91497
6	K14NVEPC	0.96149	0.97095	0.36021	0.21758	0.36681	0.47093	0.36021	0.97095	0.97095	0.97095	0.96908	0.92356
7	K16NVEPC	0.97469	0.98813	0.31063	0.17158	0.31429	0.42944	0.31063	0.98813	0.98813	0.98813	0.98491	0.92464
8	K20NVEPC	0.00641	-0.09697	0.80948	0.89092	0.77030	0.33837	0.80948	-0.09697	-0.09697	-0.09697	-0.05946	0.28857
9	K24NVEPC	0.08716	-0.01264	0.88809	0.94956	0.85168	0.43131	0.88809	-0.01264	-0.01264	-0.01264	0.02525	0.37147
10	K28NVEPC	0.03568	-0.06363	0.86631	0.93540	0.82650	0.43444	0.86631	-0.06363	-0.06363	-0.06363	-0.02357	0.32263
11	K32NVEPC	0.03820	-0.05838	0.86824	0.93432	0.82879	0.45549	0.86824	-0.05838	-0.05838	-0.05838	-0.01849	0.32418
12	K36NVEPC	0.06251	-0.02319	0.87781	0.92777	0.84201	0.51020	0.87781	-0.02319	-0.02319	-0.02319	0.01507	0.33641
13	K40NVEPC	0.05034	-0.03183	0.88319	0.93018	0.85000	0.52788	0.88319	-0.03183	-0.03183	-0.03183	0.00522	0.32428
14	K46NVEPC	0.05680	-0.01683	0.87747	0.91435	0.84812	0.56265	0.87747	-0.01683	-0.01683	-0.01683	0.01784	0.32230
15	K50NVEPC	0.05984	-0.00681	0.87307	0.90158	0.84756	0.58819	0.87307	-0.00681	-0.00681	-0.00681	0.02562	0.31816
16	K60NVEPC	0.06105	0.01337	0.87413	0.88042	0.86122	0.66074	0.87413	0.01337	0.01337	0.01337	0.03897	0.30429
17	KGTNVEPC	0.06105	0.01337	0.87413	0.88042	0.86122	0.66074	0.87413	0.01337	0.01337	0.01337	0.03897	0.30429

RANDALL TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_WADJ	FB_WADJ	MA_WADJ	AP_WADJ	MY_WADJ	JN_WADJ	JL_WADJ	AU_WADJ	SP_WADJ	OC_WADJ	NO_WADJ	DE_WADJ
1	0.07512	0.15595	0.28755	0.26569	0.30869	0.39002	0.28755	0.15595	0.15595	0.15595	0.14413	0.09339
2	0.25269	0.48580	0.24596	0.18724	0.27215	0.44906	0.24596	0.48580	0.48580	0.48580	0.42427	0.11251
3	-0.10882	0.40564	0.28299	0.14713	0.28281	0.41135	0.28299	0.40564	0.40564	0.40564	0.27850	-0.61279
4	-0.39618	0.17225	0.29407	0.13036	0.32126	0.45882	0.29407	0.17225	0.17225	0.17225	0.03138	-0.95024
5	-0.93485	-0.22871	0.22974	0.09705	0.25228	0.40593	0.22974	-0.22871	-0.22871	-0.22871	-0.40147	-1.62065
6	-0.94065	-0.23231	0.24533	0.10971	0.26810	0.41006	0.24533	-0.23231	-0.23231	-0.23231	-0.40546	-1.64278
7	-1.29638	-0.49772	0.16318	0.05620	0.18261	0.31666	0.16318	-0.49772	-0.49772	-0.49772	-0.69338	-2.05733
8	-0.08861	0.04748	0.43194	0.30021	0.45371	0.25192	0.43194	0.04748	0.04748	0.04748	0.04096	-0.63523
9	-0.11473	0.00623	0.47194	0.31762	0.49985	0.32030	0.47194	0.00623	0.00623	0.00623	-0.01750	-0.82003
10	-0.04714	0.03162	0.45848	0.31057	0.48334	0.32181	0.45848	0.03162	0.03162	0.03162	0.01642	-0.71423
11	-0.05066	0.02923	0.45761	0.30790	0.48294	0.33655	0.45761	0.02923	0.02923	0.02923	0.01296	-0.71968
12	-0.08690	0.01273	0.43776	0.27590	0.46766	0.36459	0.43776	0.01273	0.01273	0.01273	-0.01134	-0.77616
13	-0.07028	0.01761	0.43813	0.27585	0.46996	0.37605	0.43813	0.01761	0.01761	0.01761	-0.00396	-0.74867
14	-0.07929	0.00931	0.43529	0.26919	0.46892	0.40081	0.43529	0.00931	0.00931	0.00931	-0.01351	-0.74411
15	-0.08354	0.00377	0.43311	0.26543	0.46861	0.41901	0.43311	0.00377	0.00377	0.00377	-0.01941	-0.73456
16	-0.08523	-0.00740	0.43363	0.25920	0.47617	0.47069	0.43363	-0.00740	-0.00740	-0.00740	-0.02953	-0.70254
17	-0.08523	-0.00740	0.43363	0.25920	0.47617	0.47069	0.43363	-0.00740	-0.00740	-0.00740	-0.02953	-0.70254

APPENDIX C: TOPWIDTHS AND CORRELATION COEFFICIENTS OF GARRISON TAILWATER

Tables of coefficients are presented in two major groups. The first group contains the correlation coefficients for depth and the second contains the correlations for velocity. Within each group, the tables occur in three major subsets--one subset for each of the types of water year (median flow, high flow, and low flow). Within each subset, the coefficients are separated by channel category and then by topwidth adjustment. Within each pair of tables, the first table contains coefficients not adjusted for topwidth and the second member of the pair contains coefficients adjusted for topwidth.

GARRISON CHANNEL TOPWIDTHS BY DISCHARGE

OBS	Q	DISTANT	IMMEDIATE	MIDDLE	NEAR
1	4000	487	701	418	1416
2	6000	547	933	657	1416
3	8000	747	1090	873	1416
4	10000	855	1160	1167	1440
5	12000	998	1317	1307	1440
6	14000	1133	1367	1417	1537
7	16000	1134	1434	1455	1728
8	18000	1309	1478	1565	1808
9	20000	1412	1663	1603	1868
10	24000	1665	1738	1747	1968
11	28000	2401	1743	2644	2450
12	32000	3393	1933	2645	2794
13	36000	3473	2036	2654	2834
14	40000	3685	2328	2665	2875
15	46000	3943	2328	2678	3338
16	50000	3944	2328	2678	3338
17	60000	3944	2333	2891	3338

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K04DDEPC	0.24428	0.19057	0.16776	0.21084	0.09822	0.05741	0.09822	0.20904	0.16801	0.16801	0.19057	0.24150
2	K06DDEPC	0.38521	0.34090	0.22257	0.19857	0.20792	-0.00279	0.20792	0.30652	0.33174	0.33174	0.34090	0.39516
3	K08DDEPC	0.57673	0.53695	0.37193	0.32287	0.36319	0.08573	0.36319	0.48132	0.53188	0.53188	0.53695	0.58865
4	K10DDEPC	0.68772	0.65950	0.47414	0.40606	0.47211	0.15726	0.47211	0.59225	0.65947	0.65947	0.65950	0.70133
5	K12DDEPC	0.84333	0.87629	0.71953	0.60255	0.75535	0.39180	0.75535	0.80440	0.89509	0.89509	0.87629	0.85533
6	K14DDEPC	0.83569	0.87262	0.75236	0.61382	0.77709	0.41311	0.77709	0.80504	0.89163	0.89163	0.87262	0.84727
7	K16DDEPC	0.83416	0.88332	0.75640	0.63130	0.80852	0.44306	0.80852	0.81772	0.90569	0.90569	0.88332	0.84504
8	K20DDEPC	0.79826	0.86845	0.78783	0.65501	0.86444	0.52536	0.86444	0.81211	0.89523	0.89523	0.86845	0.80767
9	K24DDEPC	0.97295	0.96276	0.93734	0.93187	0.85914	0.71839	0.85914	0.97495	0.94725	0.94725	0.96276	0.97084
10	K28DDEPC	0.61979	0.52741	0.59360	0.74169	0.37844	0.57050	0.37844	0.61745	0.47218	0.47218	0.52741	0.60416
11	K32DDEPC	0.64760	0.54397	0.57394	0.71752	0.35435	0.50122	0.35435	0.62278	0.48773	0.48773	0.54397	0.63415
12	K36DDEPC	0.66295	0.61645	0.44948	0.41138	0.41553	0.13545	0.41553	0.56723	0.60710	0.60710	0.61645	0.67337
13	K40DDEPC	0.74284	0.70822	0.53010	0.47541	0.50445	0.19232	0.50445	0.65104	0.70358	0.70358	0.70822	0.75426
14	K44DDEPC	0.73449	0.71709	0.52730	0.44702	0.52930	0.17716	0.52930	0.64646	0.72094	0.72094	0.71709	0.74803
15	K50DDEPC	0.81828	0.82730	0.64407	0.54074	0.66227	0.28519	0.66227	0.75211	0.83963	0.83963	0.82730	0.85166
16	K60DDEPC	0.84046	0.88427	0.73946	0.61617	0.78149	0.40422	0.78149	0.81466	0.90599	0.90599	0.88427	0.85178
17	KGTDDEPC	0.84046	0.88427	0.73946	0.61617	0.78149	0.40422	0.78149	0.81466	0.90599	0.90599	0.88427	0.85178

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.08900	0.06277	0.03993	0.04663	0.02041	0.00987	0.02041	0.06436	0.05521	0.05521	0.06277	0.09096
2	0.15763	0.12612	0.05945	0.04933	0.04852	-0.00054	0.04852	0.10600	0.12244	0.12244	0.12612	0.16432
3	0.32229	0.27129	0.13579	0.10953	0.11574	0.02260	0.11574	0.22731	0.26809	0.26809	0.27129	0.34008
4	0.43988	0.38138	0.19814	0.15766	0.17221	0.04744	0.17221	0.32013	0.38046	0.38046	0.38138	0.46376
5	0.62962	0.59150	0.35088	0.27309	0.32160	0.13797	0.32160	0.50753	0.60277	0.60277	0.59150	0.66019
6	0.70831	0.66870	0.40555	0.31583	0.37562	0.16515	0.37562	0.57665	0.68166	0.68166	0.66870	0.74263
7	0.70764	0.67750	0.41924	0.32511	0.39115	0.17728	0.39115	0.58625	0.69302	0.69302	0.67750	0.74112
8	0.78169	0.76889	0.50404	0.38938	0.48274	0.24266	0.48274	0.67208	0.79072	0.79072	0.76889	0.79768
9	0.91818	0.91946	0.64688	0.59755	0.51754	0.35793	0.51754	0.87032	0.90251	0.90251	0.91946	0.88149
10	0.46759	0.46088	0.48306	0.56081	0.26881	0.33518	0.26881	0.58495	0.41388	0.41388	0.46088	0.43034
11	0.13201	0.20456	0.47435	0.65267	0.34573	0.42464	0.34573	0.30022	0.18528	0.18528	0.20456	0.09073
12	-0.35683	-0.18179	0.15356	0.18888	0.22957	0.10873	0.22957	-0.08230	-0.17574	-0.17574	-0.18179	-0.42027
13	-0.44428	-0.24717	0.16038	0.20100	0.26148	0.14896	0.26148	-0.12739	-0.24165	-0.24165	-0.24717	-0.51742
14	-0.55578	-0.35309	0.10489	0.14596	0.22649	0.12396	0.22649	-0.21314	-0.35074	-0.35074	-0.35309	-0.63580
15	-0.77712	-0.55172	0.04690	0.11321	0.21049	0.17359	0.21049	-0.37065	-0.55465	-0.55465	-0.55172	-0.87282
16	-0.79681	-0.59031	0.05349	0.12872	0.24805	0.24590	0.24805	-0.40199	-0.59911	-0.59911	-0.59031	-0.89460
17	-0.79681	-0.59031	0.05349	0.12872	0.24805	0.24590	0.24805	-0.40199	-0.59911	-0.59911	-0.59031	-0.89460

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.87141	0.84847	0.86831	0.86731	0.90490	0.73158	0.90490	0.85701	0.84939	0.84939	0.84847	0.87837
2	K06NDEPC	0.89539	0.86725	0.87198	0.86837	0.90019	0.70456	0.90019	0.87251	0.86698	0.86698	0.86725	0.90277
3	K08NDEPC	0.96984	0.94919	0.92874	0.92051	0.92797	0.70963	0.92797	0.94907	0.94776	0.94776	0.94919	0.97372
4	K10NDEPC	0.99825	0.99520	0.95867	0.94742	0.92807	0.71222	0.92807	0.99163	0.99366	0.99366	0.99520	0.99662
5	K12NDEPC	0.99607	0.99375	0.96457	0.95453	0.93948	0.73016	0.93948	0.99184	0.99272	0.99272	0.99375	0.99471
6	K14NDEPC	0.98336	0.99932	0.97959	0.97093	0.94572	0.76530	0.94572	0.99955	0.99981	0.99981	0.99932	0.97792
7	K16NDEPC	0.96266	0.99178	0.98399	0.97725	0.94802	0.79478	0.94802	0.99465	0.99369	0.99369	0.99178	0.95459
8	K20NDEPC	0.95789	0.98902	0.99164	0.98666	0.96247	0.82117	0.96247	0.99418	0.99169	0.99169	0.98902	0.94995
9	K24NDEPC	0.91473	0.96353	0.98199	0.97966	0.94975	0.84850	0.94975	0.97208	0.96805	0.96805	0.96353	0.90326
10	K28NDEPC	0.86967	0.93154	0.96853	0.96942	0.93961	0.87721	0.93961	0.94400	0.93785	0.93785	0.93154	0.85[illegible]0
11	K32NDEPC	0.86146	0.92293	0.97621	0.98004	0.96123	0.91682	0.96123	0.93885	0.93021	0.93021	0.92293	0.84885
12	K36NDEPC	0.85140	0.91219	0.97629	0.98210	0.97104	0.93932	0.97104	0.93037	0.92008	0.92008	0.91219	0.83960
13	K40NDEPC	0.90422	0.93016	0.98140	0.98520	0.99823	0.90694	0.99823	0.94567	0.93551	0.93551	0.93016	0.90052
14	K44NDEPC	0.83666	0.89077	0.97030	0.97907	0.98457	0.96564	0.98457	0.91213	0.89922	0.89922	0.89077	0.82744
15	K50NDEPC	0.74992	0.82350	0.92648	0.93959	0.94231	0.98517	0.94231	0.84955	0.83430	0.83430	0.82350	0.73712
16	K60NDEPC	0.59648	0.68134	0.82379	0.84472	0.86314	0.99250	0.86314	0.71504	0.69493	0.69493	0.68134	0.58306
17	KGTNDEPC	0.59648	0.68134	0.82379	0.84472	0.86314	0.99250	0.86314	0.71504	0.69493	0.69493	0.68134	0.58306

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_MDADJ	FB_MDADJ	MA_MDADJ	AP_MDADJ	MY_MDADJ	JN_MDADJ	JL_MDADJ	AU_MDADJ	SP_MDADJ	OC_MDADJ	NO_MDADJ	DE_MDADJ
1	0.55875	0.47186	0.33844	0.32487	0.27846	0.19265	0.27846	0.43329	0.46193	0.46193	0.47186	0.57762
2	0.76614	0.64192	0.45235	0.43291	0.36869	0.24694	0.36869	0.58712	0.62753	0.62753	0.64192	0.79013
3	0.96696	0.82080	0.56287	0.53613	0.44402	0.29057	0.44402	0.74612	0.80144	0.80144	0.82080	0.95180
4	0.93730	0.91585	0.61832	0.58723	0.47259	0.31036	0.47259	0.82964	0.89422	0.89422	0.91585	0.90873
5	0.79221	0.94921	0.70633	0.67172	0.54315	0.36124	0.54315	0.94212	0.97116	0.97116	0.94921	0.76050
6	0.73713	0.91489	0.74456	0.70920	0.56751	0.39300	0.56751	0.98550	0.93931	0.93931	0.91489	0.70179
7	0.66261	0.85527	0.78457	0.74880	0.59678	0.42814	0.59678	0.96058	0.88191	0.88191	0.85527	0.62505
8	0.62078	0.81837	0.81693	0.77921	0.62446	0.45593	0.62446	0.92857	0.84628	0.84628	0.81837	0.58280
9	0.43802	0.65586	0.90801	0.87052	0.69334	0.53007	0.69334	0.77822	0.68718	0.68718	0.65586	0.39740
10	0.35678	0.57866	0.93595	0.90027	0.71688	0.57273	0.71688	0.70468	0.61117	0.61117	0.57866	0.31638
11	0.34947	0.56965	0.94609	0.91275	0.73548	0.60031	0.73548	0.69745	0.60258	0.60258	0.56965	0.30976
12	0.19742	0.42552	0.90328	0.94983	0.82398	0.68208	0.82398	0.56366	0.46040	0.46040	0.42552	0.15674
13	0.12448	0.35790	0.85180	0.89860	0.89218	0.69367	0.89218	0.50267	0.39336	0.39336	0.35790	0.08110
14	-0.10829	0.13639	0.68463	0.74025	0.96296	0.84448	0.96296	0.29275	0.17440	0.17440	0.13639	-0.15214
15	-0.09706	0.12609	0.65371	0.71040	0.92163	0.86156	0.92163	0.27266	0.16181	0.16181	0.12609	-0.13553
16	-0.07720	0.10432	0.58126	0.63868	0.84420	0.86797	0.84420	0.22949	0.13478	0.13478	0.10432	-0.10720
17	-0.07993	0.10162	0.57897	0.63642	0.84230	0.86983	0.84230	0.22692	0.13209	0.13209	0.10162	-0.10994

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.93379	0.86810	0.94523	0.92232	0.84705	0.90707	0.84705	0.96078	0.86277	0.86277	0.86810	0.94586
2	K06TDEPC	0.87541	0.78371	0.94518	0.89849	0.75308	0.84012	0.75308	0.98046	0.77692	0.77692	0.78371	0.89498
3	K08TDEPC	0.92563	0.86005	0.95856	0.93616	0.84684	0.89873	0.84684	0.95608	0.85474	0.85474	0.86005	0.93771
4	K10TDEPC	0.88363	0.78793	0.91586	0.86387	0.73302	0.84869	0.73302	0.99247	0.78096	0.78096	0.78793	0.90434
5	K12TDEPC	0.96147	0.90342	0.91792	0.89955	0.85832	0.93989	0.85832	0.95915	0.89862	0.89862	0.90342	0.97141
6	K14TDEPC	0.98951	0.97741	0.85886	0.87908	0.94288	0.98446	0.94288	0.86172	0.97537	0.97537	0.97741	0.98671
7	K16TDEPC	0.95951	0.98993	0.72768	0.77984	0.94504	0.97200	0.94504	0.72070	0.99062	0.99062	0.98993	0.94538
8	K20TDEPC	0.92006	0.97052	0.63005	0.69544	0.91101	0.94163	0.91101	0.63120	0.97255	0.97255	0.97052	0.90080
9	K24TDEPC	0.87765	0.93550	0.52256	0.58848	0.83130	0.90732	0.83130	0.56780	0.93829	0.93829	0.93550	0.85689
10	K28TDEPC	0.68262	0.53668	0.70752	0.60098	0.40077	0.63591	0.40077	0.93973	0.52717	0.52717	0.53668	0.71860
11	K32TDEPC	0.94136	0.86735	0.80757	0.76731	0.73289	0.92226	0.73289	0.96807	0.86197	0.86197	0.86735	0.95618
12	K36TDEPC	0.97447	0.97660	0.70947	0.73247	0.85486	0.98435	0.85486	0.79610	0.97590	0.97590	0.97660	0.96834
13	K40TDEPC	0.86249	0.92323	0.51167	0.57871	0.80862	0.89604	0.80862	0.54731	0.92635	0.92635	0.92323	0.84115
14	K46TDEPC	0.78429	0.85565	0.39043	0.46159	0.71817	0.82536	0.71817	0.44835	0.85969	0.85969	0.85565	0.76070
15	K50TDEPC	0.72065	0.79622	0.30192	0.37303	0.64160	0.76594	0.64160	0.37980	0.80072	0.80072	0.79622	0.69642
16	K60TDEPC	0.66376	0.74982	0.25204	0.33067	0.60355	0.71369	0.60355	0.30603	0.75507	0.75507	0.74982	0.63704
17	KGTTDEPC	0.66376	0.74982	0.25204	0.33067	0.60355	0.71369	0.60355	0.30603	0.75507	0.75507	0.74982	0.63704

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.58739	0.46656	0.18330	0.16744	0.14112	0.11861	0.14112	0.41095	0.45193	0.45193	0.46656	0.61108
2	0.86553	0.66204	0.28809	0.25638	0.19720	0.17238	0.19720	0.65916	0.63965	0.63965	0.66204	0.88115
3	0.63520	0.75472	0.38823	0.35495	0.29465	0.26503	0.29465	0.85409	0.77441	0.77441	0.75472	0.61017
4	0.21542	0.39358	0.49585	0.43785	0.34095	0.30931	0.34095	0.79977	0.41984	0.41984	0.39358	0.17751
5	0.03183	0.28865	0.55659	0.51063	0.44712	0.38364	0.44712	0.63551	0.32544	0.32544	0.28865	-0.01952
6	-0.13104	0.17405	0.56460	0.54100	0.53251	0.43566	0.53251	0.47396	0.21879	0.21879	0.17405	-0.18758
7	-0.18194	0.12792	0.49120	0.49280	0.54804	0.44168	0.54804	0.36837	0.17503	0.17503	0.12792	-0.23525
8	-0.32676	-0.01185	0.45745	0.47269	0.56825	0.46023	0.56825	0.25158	0.03778	0.03778	-0.01185	-0.37731
9	-0.36189	-0.05713	0.38862	0.40970	0.53112	0.45423	0.53112	0.20423	-0.00823	-0.00823	-0.05713	-0.40924
10	-0.42940	-0.13214	0.57344	0.45599	0.27905	0.34695	0.27905	0.19953	-0.09975	-0.09975	-0.13214	-0.50313
11	-1.86289	-1.21390	0.62455	0.65351	0.69346	0.76154	0.69346	-0.68302	-1.13201	-1.13201	-1.21390	-1.99512
12	-1.92987	-1.36806	0.54835	0.62352	0.80852	0.81312	0.80852	-0.56251	-1.28285	-1.28285	-1.36806	-2.02200
13	-1.71979	-1.30397	0.39334	0.49036	0.76189	0.74269	0.76189	-0.39175	-1.22817	-1.22817	-1.30397	-1.76811
14	-1.57684	-1.22063	0.29815	0.38892	0.67352	0.68694	0.67352	-0.32597	-1.15163	-1.15163	-1.22063	-1.61193
15	-1.46298	-1.14916	0.22873	0.31220	0.59838	0.64059	0.59838	-0.28118	-1.08568	-1.08568	-1.14916	-1.48971
16	-1.34749	-1.08219	0.19095	0.27674	0.56290	0.59689	0.56290	-0.22657	-1.02380	-1.02380	-1.08219	-1.36269
17	-1.56025	-1.28755	0.16604	0.24615	0.51166	0.64437	0.51166	-0.29327	-1.22534	-1.22534	-1.28755	-1.57241

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.98852	0.88787	0.74938	0.72047	0.62439	0.09492	0.62439	0.81030	0.85121	0.85121	0.88787	0.99075
2	K06NDEPC	0.96184	0.95948	0.76992	0.78706	0.68475	0.22478	0.68475	0.90064	0.93426	0.93426	0.95948	0.93559
3	K08NDEPC	0.88258	0.97026	0.81327	0.84267	0.74809	0.31389	0.74809	0.93995	0.96142	0.96142	0.97026	0.84704
4	K10NDEPC	0.80625	0.96279	0.89091	0.93075	0.85570	0.44282	0.85570	0.98010	0.97747	0.97747	0.96279	0.77008
5	K12NDEPC	0.64499	0.87464	0.86632	0.92273	0.87245	0.54869	0.87245	0.93305	0.90983	0.90983	0.87464	0.60312
6	K14NDEPC	0.58473	0.82705	0.87254	0.93682	0.90979	0.64359	0.90979	0.90954	0.87234	0.87234	0.82705	0.54366
7	K16NDEPC	0.59881	0.80018	0.93327	0.96089	0.95509	0.64368	0.95509	0.88480	0.84486	0.84486	0.80018	0.57899
8	K20NDEPC	0.44639	0.71259	0.83877	0.91527	0.93734	0.81659	0.93734	0.82526	0.76919	0.76919	0.71259	0.42663
9	K24NDEPC	0.35246	0.59598	0.76806	0.85064	0.90706	0.90574	0.90706	0.72350	0.65771	0.65771	0.59598	0.31349
10	K28NDEPC	0.41687	0.48719	0.84681	0.75781	0.82960	0.53166	0.82960	0.55702	0.52113	0.52113	0.48719	0.46032
11	K32NDEPC	0.35449	0.34586	0.73259	0.58255	0.64751	0.26481	0.64751	0.38230	0.36408	0.36408	0.34586	0.42695
12	K36NDEPC	0.36871	0.39650	0.78090	0.65861	0.73454	0.41469	0.73454	0.45036	0.42266	0.42266	0.39650	0.42811
13	K40NDEPC	0.42058	0.53677	0.85581	0.81675	0.89852	0.72264	0.89852	0.62426	0.57850	0.57850	0.53677	0.43959
14	K46NDEPC	0.41257	0.44481	0.81448	0.69724	0.76679	0.43070	0.76679	0.49744	0.47059	0.47059	0.44481	0.46827
15	K50NDEPC	0.42117	0.50158	0.84981	0.77494	0.85386	0.60791	0.85386	0.57493	0.53681	0.53681	0.50158	0.45651
16	K60NDEPC	0.29793	0.51184	0.64127	0.74431	0.82122	0.97652	0.82122	0.62653	0.56517	0.56517	0.51184	0.24780
17	KGTNDEPC	0.29793	0.51184	0.64127	0.74431	0.82122	0.97652	0.82122	0.62653	0.56517	0.56517	0.51184	0.24780

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_WDADJ	FB_WDADJ	MA_WDADJ	AP_WDADJ	MY_WDADJ	JN_WDADJ	JL_WDADJ	AU_WDADJ	SP_WDADJ	OC_WDADJ	NO_WDADJ	DE_WDADJ
1	0.50363	0.50260	0.72568	0.68251	0.51825	0.07826	0.51825	0.51787	0.49711	0.49711	0.50260	0.50476
2	0.49003	0.54314	0.74557	0.74560	0.56835	0.18527	0.56835	0.57561	0.54561	0.54561	0.54314	0.47666
3	0.44965	0.54924	0.78755	0.79809	0.62092	0.25871	0.62092	0.60074	0.56147	0.56147	0.54924	0.43154
4	0.39039	0.52161	0.87735	0.89665	0.72228	0.37116	0.72228	0.60379	0.54738	0.54738	0.52161	0.37288
5	0.31231	0.47386	0.85313	0.88893	0.73642	0.45990	0.73642	0.57481	0.50951	0.50951	0.47386	0.29204
6	0.22343	0.36683	0.82794	0.91034	0.81967	0.57579	0.81967	0.47553	0.40389	0.40389	0.36683	0.20773
7	0.10842	0.20015	0.76366	0.81095	0.94277	0.63993	0.94277	0.30018	0.22980	0.22980	0.20015	0.10483
8	0.04519	0.12051	0.64045	0.72346	0.88130	0.77381	0.88130	0.21653	0.14768	0.14768	0.12051	0.04132
9	0.01187	0.06458	0.55493	0.63823	0.82092	0.82666	0.82092	0.14811	0.08682	0.08682	0.06458	0.01056
10	-0.02984	0.00345	0.55393	0.51788	0.70219	0.45430	0.70219	0.06049	0.01668	0.01668	0.00345	-0.03295
11	-0.20523	-0.16636	0.23773	0.21026	0.36513	0.15198	0.36513	-0.13558	-0.16383	-0.16383	-0.16636	-0.26718
12	-0.34698	-0.32884	0.06969	0.08614	0.26609	0.15497	0.26609	-0.30861	-0.33559	-0.33559	-0.32884	-0.40287
13	-0.41349	-0.46693	0.05297	0.08497	0.30442	0.25322	0.30442	-0.45177	-0.48247	-0.48247	-0.46693	-0.43219
14	-0.42343	-0.40540	0.02757	0.05341	0.24136	0.14064	0.24136	-0.37960	-0.41176	-0.41176	-0.40540	-0.48059
15	-0.63752	-0.69231	-0.24031	-0.18068	0.03704	0.03468	0.03704	-0.69455	-0.71825	-0.71825	-0.69231	-0.69101
16	-0.45097	-0.70647	-0.18134	-0.17353	0.03562	0.05570	0.03562	-0.75689	-0.75619	-0.75619	-0.70647	-0.37509
17	-0.45097	-0.70647	-0.18134	-0.17353	0.03562	0.05570	0.03562	-0.75689	-0.75619	-0.75619	-0.70647	-0.37509

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K0400EPC	0.21149	0.22061	0.18972	0.13444	0.05927	0.05741	0.14165	0.16752	0.21071	0.18667	0.22061	0.23243
2	K0600EPC	0.34771	0.29422	0.21599	0.21765	0.11438	-0.00279	0.03072	0.22787	0.27923	0.24247	0.29422	0.35443
3	K0800EPC	0.53877	0.45920	0.35264	0.36985	0.24455	0.08573	0.10739	0.38362	0.44262	0.39967	0.45920	0.53955
4	K1000EPC	0.65589	0.56390	0.44419	0.47454	0.34191	0.15726	0.16608	0.49072	0.54795	0.50559	0.56390	0.65085
5	K1200EPC	0.85394	0.76704	0.66388	0.73743	0.62697	0.39180	0.34409	0.74189	0.75993	0.74106	0.76704	0.82953
6	K1400EPC	0.85013	0.76857	0.67891	0.75658	0.65217	0.41311	0.35785	0.75034	0.76265	0.74601	0.76857	0.82459
7	K1600EPC	0.85764	0.78074	0.69929	0.78376	0.68772	0.44306	0.37788	0.77454	0.77706	0.76637	0.78074	0.82864
8	K2000EPC	0.83876	0.77617	0.73173	0.83077	0.76448	0.52536	0.43116	0.79711	0.77809	0.77868	0.77617	0.80359
9	K2400EPC	0.97374	0.97556	0.93420	0.90099	0.79231	0.71839	0.77432	0.94486	0.97334	0.95778	0.97556	0.97703
10	K2800EPC	0.57890	0.66188	0.65415	0.48492	0.39731	0.57050	0.76596	0.59536	0.65761	0.63641	0.66188	0.62467
11	K3200EPC	0.59621	0.66380	0.63113	0.46166	0.35185	0.50122	0.70702	0.58008	0.65542	0.62571	0.66380	0.64385
12	K3600EPC	0.62211	0.54831	0.43214	0.43270	0.29035	0.13545	0.18132	0.46500	0.53089	0.48589	0.54831	0.62666
13	K4000EPC	0.70893	0.62735	0.50388	0.51686	0.37062	0.19232	0.22552	0.54903	0.61079	0.56779	0.62735	0.70832
14	K4600EPC	0.70954	0.61541	0.48966	0.52787	0.38831	0.17716	0.18196	0.54765	0.59997	0.56057	0.61541	0.70098
15	K5000EPC	0.81123	0.71613	0.59405	0.65195	0.52034	0.28519	0.26476	0.66788	0.70440	0.67439	0.71613	0.79371
16	K6000EPC	0.85917	0.77698	0.68010	0.75941	0.65265	0.40422	0.35065	0.76245	0.77157	0.75795	0.77698	0.83178
17	KGTDDEPC	0.85917	0.77698	0.68010	0.75941	0.65265	0.40422	0.35065	0.76245	0.77157	0.75795	0.77698	0.83178

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.06983	0.06652	0.04052	0.02812	0.01138	0.00987	0.02508	0.04520	0.06048	0.05273	0.06652	0.07692
2	0.12895	0.09965	0.05182	0.05114	0.02467	-0.00054	0.00611	0.06906	0.09002	0.07693	0.09965	0.13175
3	0.27285	0.21240	0.11554	0.11868	0.07202	0.02260	0.02916	0.15876	0.19486	0.17318	0.21240	0.27390
4	0.38019	0.29854	0.16657	0.17428	0.11525	0.04744	0.05162	0.23244	0.27611	0.25074	0.29854	0.37817
5	0.57778	0.47400	0.29059	0.31613	0.24668	0.13797	0.12484	0.41020	0.44698	0.42899	0.47400	0.56260
6	0.65301	0.53919	0.33737	0.36822	0.29131	0.16515	0.14739	0.47099	0.50925	0.49027	0.53919	0.63490
7	0.65937	0.54821	0.34781	0.38178	0.30746	0.17728	0.15578	0.48661	0.51934	0.50410	0.54821	0.63858
8	0.74436	0.62911	0.42010	0.46713	0.39452	0.24266	0.20517	0.57807	0.60028	0.59124	0.62911	0.71484
9	0.93215	0.85293	0.57855	0.54648	0.44106	0.35793	0.39746	0.73914	0.80999	0.78445	0.85293	0.93757
10	0.50433	0.64139	0.47770	0.34682	0.26080	0.33518	0.46362	0.54918	0.64531	0.61463	0.64139	0.54253
11	0.22191	0.34074	0.59764	0.44718	0.33305	0.42464	0.61711	0.38854	0.38338	0.38000	0.34074	0.23715
12	-0.18684	-0.05534	0.22119	0.23475	0.19231	0.10873	0.13899	0.05590	0.00016	0.01550	-0.05534	-0.19164
13	-0.25137	-0.09439	0.24023	0.26265	0.23378	0.14896	0.16631	0.04167	-0.02862	-0.00823	-0.09439	-0.25512
14	-0.35357	-0.17338	0.18792	0.22017	0.21249	0.12396	0.12016	-0.02276	-0.10307	-0.07706	-0.17338	-0.35346
15	-0.54614	-0.31616	0.16076	0.19967	0.23181	0.17359	0.15001	-0.12322	-0.22812	-0.19363	-0.31616	-0.53939
16	-0.57899	-0.34351	0.18375	0.23226	0.29049	0.24590	0.19855	-0.14109	-0.25033	-0.21806	-0.34351	-0.56583
17	-0.57899	-0.34351	0.18375	0.23226	0.29049	0.24590	0.19855	-0.14109	-0.25033	-0.21806	-0.34351	-0.56583

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.84757	0.85954	0.94688	0.93157	0.83720	0.73158	0.85428	0.82769	0.85270	0.82983	0.85954	0.84664
2	K06NDEPC	0.86748	0.87433	0.94576	0.92840	0.82366	0.70456	0.83814	0.83667	0.86707	0.84268	0.87433	0.86764
3	K08NDEPC	0.95041	0.94940	0.96467	0.94966	0.84836	0.70963	0.85017	0.91346	0.94386	0.92429	0.94940	0.95140
4	K10NDEPC	0.99635	0.99074	0.94754	0.93848	0.85711	0.71222	0.84466	0.96531	0.98825	0.97784	0.99074	0.99714
5	K12NDEPC	0.99443	0.99135	0.95905	0.95026	0.87070	0.73016	0.86026	0.96728	0.98876	0.97815	0.99135	0.99479
6	K14NDEPC	0.99844	0.99923	0.94959	0.94723	0.89353	0.76530	0.87693	0.98963	0.99915	0.99648	0.99923	0.99721
7	K16NDEPC	0.98951	0.99471	0.94069	0.94314	0.90978	0.79478	0.89034	0.99642	0.99636	0.99921	0.99471	0.98688
8	K20NDEPC	0.98605	0.99477	0.95393	0.95730	0.92876	0.82117	0.91157	0.99934	0.99646	0.99961	0.99477	0.98276
9	K24NDEPC	0.95871	0.97315	0.92554	0.93560	0.93608	0.84850	0.91493	0.99331	0.97722	0.98806	0.97315	0.95358
10	K28NDEPC	0.92500	0.94579	0.90369	0.91906	0.94377	0.87721	0.92179	0.97873	0.95150	0.96781	0.94579	0.91819
11	K32NDEPC	0.91552	0.94151	0.92588	0.94176	0.97102	0.91682	0.95438	0.97664	0.94681	0.96209	0.94151	0.90793
12	K36NDEPC	0.90424	0.93361	0.93636	0.95248	0.98463	0.93932	0.97184	0.96997	0.93858	0.95304	0.93361	0.89615
13	K40NDEPC	0.92481	0.94895	0.99615	0.99920	0.97779	0.90694	0.97921	0.95694	0.94876	0.94689	0.94895	0.91938
14	K46NDEPC	0.88236	0.91631	0.95603	0.97053	0.99937	0.96564	0.99525	0.95019	0.91994	0.93050	0.91631	0.87393
15	K50NDEPC	0.81282	0.85450	0.89467	0.91757	0.98535	0.98517	0.97869	0.90763	0.86083	0.88023	0.85450	0.80217
16	K60NDEPC	0.66810	0.72170	0.80238	0.83221	0.93895	0.99250	0.93985	0.79166	0.72931	0.75359	0.72170	0.65505
17	KGTNDEPC	0.66810	0.72170	0.80238	0.83221	0.93895	0.99250	0.93985	0.79166	0.72931	0.75359	0.72170	0.65505

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.48226	0.42462	0.30751	0.28838	0.23763	0.19265	0.22916	0.36839	0.41531	0.38781	0.42462	0.49314
2	0.65695	0.57487	0.40880	0.38251	0.31115	0.24694	0.29925	0.49563	0.56208	0.52415	0.57487	0.67263
3	0.84086	0.72928	0.48714	0.45711	0.37442	0.29057	0.35462	0.63218	0.71482	0.67165	0.72928	0.86168
4	0.93812	0.80991	0.50922	0.48074	0.40257	0.31036	0.37495	0.71096	0.79650	0.75620	0.80991	0.96110
5	0.92582	0.92009	0.58516	0.55266	0.46430	0.36124	0.43356	0.80883	0.90477	0.85881	0.92009	0.90097
6	0.88904	0.96261	0.60138	0.57181	0.49457	0.39300	0.45874	0.85893	0.94899	0.90813	0.96261	0.86174
7	0.82727	0.98420	0.62495	0.59725	0.52824	0.42814	0.48858	0.90722	0.99272	0.95525	0.98420	0.79786
8	0.78916	0.95341	0.65319	0.62481	0.55581	0.45593	0.51558	0.93779	0.96963	0.98495	0.95341	0.75860
9	0.62332	0.80582	0.71308	0.68709	0.63031	0.53007	0.58225	0.93781	0.82530	0.88069	0.80582	0.58950
10	0.54509	0.73317	0.72764	0.70538	0.66415	0.57273	0.61307	0.87744	0.75400	0.81425	0.73317	0.51040
11	0.53579	0.72653	0.74766	0.72488	0.68529	0.60031	0.63657	0.87247	0.74699	0.80623	0.72653	0.50092
12	0.38973	0.59543	0.83854	0.81305	0.77064	0.68208	0.71887	0.74949	0.61659	0.67793	0.59543	0.35295
13	0.32128	0.53633	0.93962	0.89838	0.80607	0.69367	0.76292	0.67685	0.55538	0.60853	0.53633	0.28341
14	0.09740	0.32933	0.88096	0.94331	0.94202	0.84448	0.88663	0.49591	0.35187	0.41686	0.32933	0.05737
15	0.08973	0.30712	0.82441	0.89184	0.92879	0.86156	0.87188	0.47370	0.32926	0.39434	0.30712	0.05266
16	0.07375	0.25938	0.73937	0.80887	0.88506	0.86797	0.83728	0.41317	0.27895	0.33761	0.25938	0.04300
17	0.07104	0.25684	0.73751	0.80703	0.88696	0.86983	0.83908	0.41066	0.27642	0.33510	0.25684	0.04028

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.87330	0.91696	0.83824	0.84937	0.79838	0.90707	0.76715	0.90238	0.93267	0.97060	0.91696	0.87835
2	K06TDEPC	0.79038	0.96117	0.76531	0.76192	0.68796	0.84012	0.65404	0.96005	0.97111	0.99081	0.96117	0.79691
3	K08TDEPC	0.86526	0.91311	0.84846	0.85265	0.78752	0.89873	0.75408	0.90441	0.92918	0.96839	0.91311	0.87028
4	K10TDEPC	0.79478	0.97505	0.72867	0.73591	0.68898	0.84869	0.66109	0.96311	0.98316	0.99691	0.97505	0.80149
5	K12TDEPC	0.90808	0.90698	0.83077	0.85378	0.83531	0.93989	0.81268	0.87782	0.92332	0.96310	0.90698	0.91260
6	K14TDEPC	0.97931	0.77369	0.88932	0.92961	0.94786	0.98446	0.93354	0.72574	0.79811	0.86425	0.77369	0.98108
7	K16TDEPC	0.98912	0.60484	0.86194	0.92100	0.99153	0.97200	0.99248	0.53416	0.63414	0.71699	0.60484	0.98818
8	K20TDEPC	0.96835	0.50469	0.81088	0.88043	0.98525	0.94163	0.99708	0.42061	0.53509	0.62229	0.50469	0.96608
9	K24TDEPC	0.93260	0.43989	0.71490	0.79379	0.94129	0.90732	0.97038	0.33821	0.46793	0.54830	0.43989	0.92959
10	K28TDEPC	0.54608	0.97756	0.38493	0.39740	0.39412	0.63591	0.38217	0.95962	0.96796	0.92666	0.97756	0.55535
11	K32TDEPC	0.87259	0.92890	0.67506	0.71595	0.76785	0.92226	0.76938	0.87235	0.93763	0.95315	0.92890	0.87769
12	K36TDEPC	0.97718	0.69893	0.76540	0.82691	0.93027	0.98435	0.94784	0.61428	0.72072	0.77895	0.69893	0.97762
13	K40TDEPC	0.91999	0.61890	0.70310	0.77420	0.91599	0.89604	0.94990	0.31787	0.44670	0.52665	0.61890	0.91665
14	K46TDEPC	0.85151	0.31975	0.60244	0.67935	0.84901	0.82536	0.89489	0.20812	0.34564	0.42070	0.31975	0.84729
15	K50TDEPC	0.79164	0.25424	0.52007	0.60014	0.78760	0.76594	0.84153	0.13632	0.27797	0.34706	0.25424	0.78697
16	K60TDEPC	0.74449	0.17855	0.49029	0.56463	0.74475	0.71369	0.80028	0.06387	0.20276	0.27431	0.17855	0.73909
17	KGTTDEPC	0.74449	0.17855	0.49029	0.56463	0.74475	0.71369	0.80028	0.06387	0.20276	0.27431	0.17855	0.73909

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.48190	0.36961	0.14339	0.14211	0.13211	0.11841	0.11889	0.24335	0.36106	0.33585	0.36961	0.49800
2	0.68552	0.60896	0.20577	0.20037	0.17893	0.17238	0.15931	0.40694	0.59089	0.53888	0.60896	0.71017
3	0.73331	0.76870	0.30313	0.27795	0.27217	0.24503	0.24407	0.50939	0.75126	0.69984	0.76870	0.71006
4	0.36513	0.85281	0.34801	0.34376	0.31831	0.30931	0.28603	0.72513	0.90371	0.96307	0.85281	0.33429
5	0.24935	0.67083	0.44437	0.44667	0.43221	0.38364	0.39380	0.74020	0.72899	0.88417	0.67083	0.20734
6	0.12670	0.49018	0.51572	0.52727	0.53172	0.43566	0.49044	0.66346	0.54883	0.71472	0.49018	0.07652
7	0.07835	0.36104	0.51325	0.53640	0.57113	0.44168	0.53539	0.50142	0.41375	0.57039	0.36104	0.02614
8	-0.06392	0.24772	0.51935	0.55153	0.61042	0.46023	0.57854	0.41654	0.29461	0.43858	0.24772	-0.11859
9	-0.10834	0.19979	0.46899	0.50934	0.59734	0.45423	0.57671	0.32664	0.26117	0.36901	0.19979	-0.16202
10	-0.16725	0.30826	0.27521	0.27790	0.27258	0.34695	0.24753	0.83765	0.36979	0.51319	0.30826	-0.20527
11	-1.30053	-0.51058	0.61967	0.67418	0.73198	0.76154	0.75421	0.25664	-0.42073	-0.17990	-0.51058	-1.39228
12	-1.45770	-0.38485	0.70228	0.77834	0.88644	0.81312	0.92950	0.18032	-0.32406	-0.14767	-0.38485	-1.55213
13	-1.38333	-0.23429	0.64253	0.72593	0.86958	0.74269	0.93469	0.09146	-0.20458	-0.10376	-0.23429	-1.46652
14	-1.29272	-0.18223	0.54783	0.63401	0.80230	0.68694	0.88420	0.05841	-0.16182	-0.08672	-0.18223	-1.36819
15	-1.21541	-0.14808	0.47016	0.55696	0.74021	0.64059	0.83553	0.03711	-0.13348	-0.07527	-0.14808	-1.28467
16	-1.14303	-0.10400	0.44324	0.52401	0.69993	0.59689	0.79458	0.01739	-0.09737	-0.05950	-0.10400	-1.20650
17	-1.35237	-0.14067	0.40050	0.47587	0.63713	0.64437	0.74278	0.00861	-0.13737	-0.10786	-0.14067	-1.42004

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHSFOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.91722	0.79446	0.62244	0.64032	0.45764	0.09492	0.33940	0.75186	0.77596	0.70997	0.79446	0.94014
2	K06NDEPC	0.97633	0.88704	0.73172	0.70675	0.57899	0.22478	0.46597	0.73649	0.87331	0.82100	0.88704	0.98600
3	K08NDEPC	0.97010	0.93010	0.80005	0.76991	0.66075	0.31389	0.55429	0.76821	0.92270	0.88944	0.93010	0.96265
4	K10NDEPC	0.94127	0.97830	0.90213	0.87533	0.78548	0.44282	0.68759	0.83271	0.97848	0.96989	0.97830	0.91499
5	K12NDEPC	0.83457	0.93842	0.92028	0.88917	0.84130	0.54869	0.76486	0.79403	0.94639	0.96342	0.93842	0.79183
6	K14NDEPC	0.77961	0.92027	0.94934	0.92290	0.90020	0.64359	0.83949	0.79197	0.93188	0.96205	0.92027	0.73185
7	K16NDEPC	0.75491	0.89693	0.94081	0.96017	0.89825	0.64368	0.84060	0.87725	0.90833	0.93903	0.89693	0.71049
8	K20NDEPC	0.65837	0.84389	0.95654	0.94179	0.97150	0.81659	0.94840	0.74660	0.86027	0.90869	0.84389	0.60735
9	K24NDEPC	0.53933	0.74648	0.91194	0.90501	0.97314	0.90574	0.97968	0.67178	0.76557	0.82478	0.74648	0.48787
10	K28NDEPC	0.45552	0.56932	0.65060	0.80590	0.65565	0.53166	0.63771	0.88043	0.57901	0.60796	0.56932	0.42630
11	K32NDEPC	0.32828	0.38822	0.41906	0.61864	0.39669	0.26481	0.37002	0.81852	0.39293	0.40613	0.38822	0.31162
12	K36NDEPC	0.37207	0.45984	0.52366	0.70629	0.52256	0.41469	0.50612	0.84343	0.46725	0.48928	0.45984	0.34950
13	K40NDEPC	0.49859	0.64041	0.76243	0.87779	0.79709	0.72264	0.79587	0.85187	0.65276	0.69058	0.64041	0.46387
14	K46NDEPC	0.42038	0.50649	0.56478	0.74042	0.55506	0.43070	0.53308	0.87362	0.51340	0.53343	0.50649	0.39755
15	K50NDEPC	0.46902	0.58822	0.68611	0.83003	0.70183	0.60791	0.69241	0.87533	0.59835	0.62892	0.58822	0.43917
16	K60NDEPC	0.46460	0.64901	0.84246	0.81654	0.93625	0.97652	0.97150	0.53001	0.66591	0.71966	0.64901	0.42278
17	KGTNDEPC	0.46460	0.64901	0.84246	0.81654	0.93625	0.97652	0.97150	0.53001	0.66591	0.71966	0.64901	0.42278

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_WDADJ	FB_WDADJ	MA_WDADJ	AP_WDADJ	MY_WDADJ	JN_WDADJ	JL_WDADJ	AU_WDADJ	SP_WDADJ	OC_WDADJ	NO_WDADJ	DE_WDADJ
1	0.50235	0.52160	0.57843	0.54571	0.37985	0.07824	0.28131	0.67585	0.50945	0.46613	0.52160	0.49717
2	0.53473	0.58238	0.67997	0.60232	0.48057	0.18527	0.38622	0.66204	0.57337	0.53902	0.58238	0.52143
3	0.53132	0.61065	0.74347	0.65615	0.54843	0.25871	0.45942	0.69055	0.60579	0.58396	0.61065	0.50908
4	0.49236	0.62002	0.85254	0.75866	0.66301	0.37116	0.57956	0.73299	0.62014	0.61469	0.62002	0.46106
5	0.43655	0.59475	0.86970	0.77063	0.71013	0.45990	0.64469	0.69895	0.59980	0.61060	0.59475	0.39900
6	0.33023	0.49855	0.94108	0.85375	0.81103	0.57579	0.75326	0.63739	0.50484	0.52119	0.49855	0.29502
7	0.17189	0.32337	0.81470	0.92174	0.88666	0.63993	0.83095	0.57573	0.32748	0.33855	0.32337	0.14542
8	0.09589	0.24020	0.77810	0.85875	0.91341	0.77381	0.89311	0.44355	0.24486	0.25864	0.24020	0.07583
9	0.04536	0.16998	0.70591	0.79253	0.88073	0.82666	0.88816	0.36775	0.17432	0.18781	0.16998	0.02889
10	-0.00841	0.07562	0.46092	0.65723	0.55496	0.45430	0.54080	0.41351	0.07691	0.08075	0.07562	-0.01905
11	-0.16835	-0.12597	0.16432	0.32505	0.22369	0.15198	0.20940	0.07765	-0.12750	-0.13178	-0.12597	-0.16998
12	-0.32208	-0.29929	0.08712	0.22487	0.18930	0.15497	0.18451	-0.14560	-0.30411	-0.31845	-0.29929	-0.31555
13	-0.45206	-0.44112	0.10683	0.25834	0.27006	0.25322	0.27150	-0.17355	-0.44962	-0.47568	-0.44112	-0.43808
14	-0.39883	-0.36858	0.06394	0.19964	0.17472	0.14064	0.16906	-0.20584	-0.37361	-0.38818	-0.36858	-0.39239
15	-0.66770	-0.68645	-0.13081	-0.00749	0.03044	0.03468	0.03194	-0.52138	-0.69827	-0.73394	-0.68645	-0.64473
16	-0.66139	-0.75739	-0.16061	-0.00737	0.04061	0.05570	0.04481	-0.31570	-0.77710	-0.83983	-0.75739	-0.62066
17	-0.66139	-0.75739	-0.16061	-0.00737	0.04061	0.05570	0.04481	-0.31570	-0.77710	-0.83983	-0.75739	-0.62066

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K0400EPC	0.28465	0.24498	0.16045	0.16752	0.22585	0.01635	0.16776	0.24731	0.24498	0.24731	0.24498	0.28465
2	K0600EPC	0.34120	0.37450	0.22677	0.22787	0.18223	0.12970	0.22237	0.36568	0.37450	0.36568	0.37450	0.34120
3	K0800EPC	0.50267	0.56199	0.38363	0.38362	0.29314	0.27121	0.37193	0.54889	0.56199	0.54889	0.56199	0.50267
4	K1000EPC	0.59298	0.67131	0.49170	0.49072	0.36671	0.37727	0.47414	0.65633	0.67131	0.65633	0.67131	0.59298
5	K1200EPC	0.69019	0.83012	0.74736	0.74189	0.53941	0.68686	0.71933	0.81647	0.83012	0.81647	0.83012	0.69019
6	K1400EPC	0.67360	0.82424	0.75721	0.75034	0.54953	0.71420	0.73236	0.81107	0.82424	0.81107	0.82424	0.67360
7	K1600EPC	0.66303	0.82413	0.78229	0.77454	0.56402	0.75376	0.75640	0.81169	0.82413	0.81169	0.82413	0.66303
8	K2000EPC	0.60994	0.79275	0.80864	0.79711	0.58412	0.83544	0.78783	0.78195	0.79275	0.78195	0.79275	0.60994
9	K2400EPC	0.93928	0.97890	0.94097	0.94486	0.91517	0.73740	0.93734	0.97987	0.97890	0.97987	0.97890	0.93928
10	K2800EPC	0.78873	0.63718	0.57537	0.59536	0.79863	0.22308	0.59360	0.65264	0.63718	0.65264	0.63718	0.78873
11	K3200EPC	0.81244	0.66119	0.55904	0.58008	0.77230	0.18434	0.57394	0.67431	0.66119	0.67431	0.66119	0.81244
12	K3600EPC	0.60287	0.64932	0.46241	0.46500	0.38547	0.30199	0.44948	0.63762	0.64932	0.63762	0.64932	0.60287
13	K4000EPC	0.66363	0.72828	0.54748	0.54903	0.44120	0.39095	0.53010	0.71543	0.72828	0.71543	0.72828	0.66363
14	K4600EPC	0.62509	0.71783	0.54893	0.54765	0.40162	0.43163	0.52730	0.70278	0.71783	0.70278	0.71783	0.62509
15	K5000EPC	0.68187	0.80252	0.67113	0.66788	0.48406	0.57690	0.64407	0.78750	0.80252	0.78750	0.80252	0.68187
16	K6000EPC	0.67638	0.82866	0.76861	0.76245	0.54999	0.71777	0.73946	0.81571	0.82866	0.81571	0.82866	0.67638
17	KGTDDEPC	0.67638	0.82866	0.76861	0.76245	0.54999	0.71777	0.73946	0.81571	0.82866	0.81571	0.82866	0.67638

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.10721	0.08642	0.04234	0.04520	0.04824	0.00322	0.03993	0.08456	0.08642	0.08455	0.08642	0.10721
2	0.14434	0.14839	0.06720	0.06906	0.04372	0.02870	0.05945	0.14044	0.14839	0.14042	0.14839	0.14434
3	0.29041	0.30410	0.15526	0.15876	0.09604	0.08196	0.13579	0.28788	0.30410	0.28783	0.30410	0.29041
4	0.39211	0.41577	0.22777	0.23244	0.13751	0.13049	0.19814	0.39401	0.41577	0.39394	0.41577	0.39211
5	0.53272	0.60011	0.40410	0.41020	0.23611	0.27730	0.35088	0.57212	0.60011	0.57202	0.60011	0.53272
6	0.59025	0.67647	0.46481	0.47099	0.27308	0.32734	0.40555	0.64521	0.67647	0.64509	0.67647	0.59025
7	0.58150	0.67697	0.48063	0.48661	0.28053	0.34578	0.41924	0.64627	0.67697	0.64616	0.67697	0.58150
8	0.60240	0.75169	0.57348	0.57807	0.33536	0.44239	0.50404	0.71868	0.75169	0.71855	0.75169	0.60240
9	0.85284	0.95656	0.71984	0.73914	0.56676	0.42120	0.64688	0.97144	0.95656	0.97127	0.95656	0.85284
10	0.56181	0.50587	0.51903	0.54918	0.58321	0.15025	0.48306	0.54232	0.50587	0.54245	0.50587	0.56181
11	0.11624	0.17242	0.39086	0.38854	0.73131	0.17905	0.47435	0.21187	0.17242	0.21207	0.17242	0.11624
12	-0.37627	-0.29726	0.07478	0.05590	0.19730	0.18948	0.15356	-0.24377	-0.29726	-0.24350	-0.29726	-0.37627
13	-0.45525	-0.37562	0.06481	0.04167	0.21034	0.23264	0.16038	-0.31370	-0.37562	-0.31339	-0.37562	-0.45525
14	-0.53131	-0.48046	0.00193	-0.02276	0.15413	0.21983	0.10489	-0.41276	-0.48046	-0.41244	-0.48046	-0.53131
15	-0.71562	-0.68712	-0.09145	-0.12322	0.13099	0.23280	0.04690	-0.60517	-0.68712	-0.60479	-0.68712	-0.71562
16	-0.71039	-0.71011	-0.10515	-0.14109	0.14859	0.29036	0.05349	-0.62743	-0.71011	-0.62703	-0.71011	-0.71039
17	-0.71039	-0.71011	-0.10515	-0.14109	0.14859	0.29036	0.05349	-0.62743	-0.71011	-0.62703	-0.71011	-0.71039

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.82466	0.86345	0.83838	0.82769	0.86668	0.82308	0.86831	0.85513	0.86365	0.85513	0.86365	0.82466
2	K06NDEPC	0.85324	0.88712	0.84637	0.83667	0.86640	0.80968	0.87198	0.87795	0.88712	0.87795	0.88712	0.85324
3	K08NDEPC	0.94472	0.96503	0.91882	0.91346	0.91602	0.83852	0.92874	0.95920	0.96503	0.95920	0.96503	0.94472
4	K10NDEPC	0.99179	0.99905	0.96563	0.96531	0.94118	0.85305	0.95867	0.99890	0.99905	0.99890	0.99905	0.99179
5	K12NDEPC	0.98602	0.99663	0.96843	0.96728	0.94892	0.86608	0.96457	0.99628	0.99663	0.99628	0.99663	0.98602
6	K14NDEPC	0.97908	0.98820	0.98879	0.98963	0.96589	0.89251	0.97959	0.99236	0.98820	0.99236	0.98820	0.97908
7	K16NDEPC	0.96012	0.97029	0.99476	0.99642	0.97312	0.91097	0.98399	0.97744	0.97029	0.97744	0.97029	0.96012
8	K20NDEPC	0.95120	0.96545	0.99864	0.99934	0.98345	0.92951	0.99164	0.97260	0.96545	0.97260	0.96545	0.95120
9	K24NDEPC	0.91109	0.92606	0.99139	0.99331	0.97770	0.93998	0.98199	0.93727	0.92606	0.93727	0.92606	0.91109
10	K28NDEPC	0.86528	0.88342	0.97669	0.97873	0.96907	0.94953	0.96853	0.89730	0.88342	0.89730	0.88342	0.86528
11	K32NDEPC	0.84908	0.87419	0.97667	0.97664	0.98124	0.97333	0.97621	0.88715	0.87419	0.88715	0.87419	0.84908
12	K36NDEPC	0.83361	0.86336	0.97142	0.96997	0.98436	0.98789	0.97629	0.87560	0.86336	0.87560	0.86336	0.83361
13	K40NDEPC	0.87083	0.90766	0.96313	0.95694	0.98668	0.97304	0.98140	0.91094	0.90766	0.91094	0.90766	0.87083
14	K46NDEPC	0.80779	0.84601	0.95469	0.95019	0.98296	0.99966	0.97030	0.85567	0.84601	0.85567	0.84601	0.80779
15	K50NDEPC	0.72334	0.76317	0.91127	0.90763	0.94564	0.98907	0.92648	0.77710	0.76317	0.77710	0.76317	0.72334
16	K60NDEPC	0.56166	0.61067	0.79757	0.79166	0.85489	0.94307	0.82379	0.62595	0.61067	0.62595	0.61067	0.56166
17	K6TTNDEPC	0.56166	0.61067	0.79757	0.79166	0.85489	0.94307	0.82379	0.62595	0.61067	0.62595	0.61067	0.56166

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.62294	0.54031	0.36239	0.36839	0.31842	0.23783	0.33864	0.52228	0.54031	0.52239	0.54031	0.62294
2	0.84864	0.73868	0.48692	0.49563	0.42366	0.31139	0.45235	0.71368	0.73868	0.71384	0.73868	0.84864
3	0.77980	0.93876	0.61755	0.63218	0.52330	0.37675	0.56287	0.91094	0.93876	0.91114	0.93876	0.77980
4	0.74384	0.96383	0.69069	0.71096	0.57220	0.40789	0.61832	0.98824	0.96383	0.98845	0.96383	0.74384
5	0.57270	0.82185	0.78644	0.80883	0.65500	0.47017	0.70633	0.84936	0.82185	0.84955	0.82185	0.57270
6	0.51592	0.77080	0.83347	0.85893	0.69202	0.50291	0.74456	0.80279	0.77080	0.80297	0.77080	0.51592
7	0.43661	0.69881	0.87960	0.90722	0.73137	0.53847	0.78457	0.73366	0.69881	0.73382	0.69881	0.43661
8	0.38745	0.65742	0.91013	0.93779	0.76181	0.56629	0.81493	0.69275	0.65742	0.69290	0.65742	0.38745
9	0.18948	0.47770	0.96617	0.93781	0.85216	0.64435	0.90801	0.51651	0.47770	0.51662	0.47770	0.18948
10	0.11002	0.39657	0.90668	0.87744	0.88272	0.68025	0.93595	0.43585	0.39657	0.43594	0.39657	0.11002
11	0.10339	0.38853	0.90365	0.87247	0.89638	0.70074	0.94609	0.42706	0.38853	0.42715	0.38853	0.10339
12	-0.06917	0.23732	0.78498	0.74949	0.97147	0.78714	0.90328	0.27655	0.23732	0.27661	0.23732	-0.06917
13	-0.16891	0.16606	0.71711	0.67685	0.92049	0.81662	0.85180	0.20596	0.16606	0.20600	0.16606	-0.16891
14	-0.41086	-0.06569	0.53893	0.49591	0.76659	0.95928	0.68463	-0.02423	-0.06569	-0.02423	-0.06569	-0.41086
15	-0.36791	-0.05926	0.51442	0.47370	0.73748	0.94912	0.65371	-0.02200	-0.05926	-0.02201	-0.05926	-0.36791
16	-0.28567	-0.04741	0.45024	0.41317	0.66670	0.90498	0.58126	-0.01772	-0.04741	-0.01773	-0.04741	-0.28567
17	-0.28870	-0.05014	0.44778	0.41066	0.66446	0.90692	0.57897	-0.02045	-0.05014	-0.02046	-0.05014	-0.28870

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.95445	0.91928	0.93338	0.90238	0.90276	0.81032	0.94523	0.90241	0.91928	0.90241	0.91928	0.95445
2	K06TDEPC	0.97000	0.85352	0.97962	0.96005	0.86711	0.70209	0.94518	0.82943	0.85352	0.82943	0.85352	0.97000
3	K08TDEPC	0.94770	0.91114	0.93808	0.90441	0.91663	0.80116	0.95856	0.89430	0.91114	0.89430	0.91114	0.94770
4	K10TDEPC	0.98627	0.86058	0.97529	0.96311	0.83029	0.69968	0.91586	0.83532	0.86058	0.83532	0.86058	0.98627
5	K12TDEPC	0.95850	0.94904	0.90733	0.87782	0.88255	0.84326	0.91792	0.93417	0.94904	0.93417	0.94904	0.95850
6	K14TDEPC	0.86783	0.98979	0.77224	0.72574	0.88166	0.95174	0.85886	0.98751	0.98979	0.98751	0.98979	0.86783
7	K16TDEPC	0.73629	0.97123	0.58918	0.53416	0.79938	0.98876	0.72768	0.98044	0.97123	0.98044	0.97123	0.73629
8	K20TDEPC	0.65274	0.93704	0.47617	0.42061	0.72241	0.97785	0.63005	0.95160	0.93704	0.95160	0.93704	0.65274
9	K24TDEPC	0.59795	0.89623	0.38544	0.33821	0.61674	0.92765	0.52256	0.91251	0.89623	0.91251	0.89623	0.59795
10	K28TDEPC	0.93934	0.64472	0.92531	0.95962	0.54266	0.39725	0.70752	0.60524	0.64472	0.60524	0.64472	0.93934
11	K32TDEPC	0.97987	0.92405	0.87723	0.87235	0.74074	0.76586	0.80757	0.90441	0.92405	0.90441	0.92405	0.97987
12	K36TDEPC	0.81879	0.97809	0.64830	0.61428	0.73787	0.92229	0.70947	0.97922	0.97809	0.97922	0.97809	0.81879
13	K40TDEPC	0.57847	0.88167	0.36643	0.31787	0.60748	0.90252	0.51167	0.89858	0.88167	0.89858	0.88167	0.57847
14	K46TDEPC	0.48552	0.80592	0.25099	0.20812	0.49352	0.83122	0.39043	0.82548	0.80592	0.82548	0.80592	0.48552
15	K50TDEPC	0.42089	0.74307	0.17339	0.13632	0.40577	0.76690	0.30192	0.76360	0.74307	0.76360	0.74307	0.42089
16	K60TDEPC	0.34705	0.68881	0.10421	0.06387	0.36745	0.72455	0.25204	0.71211	0.68881	0.71211	0.68881	0.34705
17	K6TTDEPC	0.34705	0.68881	0.10421	0.06387	0.36745	0.72455	0.25204	0.71211	0.68881	0.71211	0.68881	0.34705

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.64193	0.56343	0.23182	0.24335	0.15882	0.13489	0.18330	0.53925	0.56343	0.53925	0.56343	0.64193
2	0.91459	0.82223	0.38262	0.40694	0.23977	0.18370	0.28809	0.77904	0.82223	0.77904	0.82223	0.91459
3	0.56420	0.65597	0.48660	0.50939	0.33679	0.27854	0.38823	0.67248	0.65597	0.67248	0.65597	0.56420
4	0.12061	0.24858	0.67627	0.72513	0.40780	0.32518	0.49585	0.27705	0.24858	0.27705	0.24858	0.12061
5	-0.09870	0.07932	0.70462	0.74020	0.48548	0.43892	0.55659	0.12286	0.07932	0.12286	0.07932	-0.09870
6	-0.24297	-0.07692	0.65019	0.66346	0.52580	0.53708	0.56460	-0.02541	-0.07692	-0.02541	-0.07692	-0.24297
7	-0.25116	-0.12959	0.50937	0.50142	0.48952	0.57294	0.49120	-0.07849	-0.12959	-0.07849	-0.12959	-0.25116
8	-0.33819	-0.27617	0.44278	0.41654	0.47583	0.60945	0.45745	-0.22583	-0.27617	-0.22583	-0.27617	-0.33819
9	-0.34636	-0.31407	0.36712	0.32664	0.41609	0.59220	0.38862	-0.26612	-0.31407	-0.26612	-0.31407	-0.34636
10	-0.76175	-0.36206	0.89013	0.83765	0.39900	0.27638	0.57344	-0.30111	-0.36206	-0.30111	-0.36206	-0.76175
11	-2.20885	-1.73429	0.37633	0.25664	0.65719	0.72529	0.62455	-1.60971	-1.73429	-1.60971	-1.73429	-2.20885
12	-1.84706	-1.83715	0.27775	0.18032	0.65434	0.87307	0.54835	-1.74427	-1.83715	-1.74427	-1.83715	-1.84706
13	-1.31332	-1.66767	0.15502	0.09146	0.53640	0.85112	0.39334	-1.61218	-1.66767	-1.61218	-1.66767	-1.31332
14	-1.11089	-1.53739	0.10454	0.05841	0.43349	0.78024	0.29815	-1.49401	-1.53739	-1.49401	-1.53739	-1.11089
15	-0.97180	-1.43165	0.07088	0.03711	0.35419	0.71590	0.22873	-1.39620	-1.43165	-1.39620	-1.43165	-0.97180
16	-0.80130	-1.32713	0.04260	0.01739	0.32074	0.67636	0.19095	-1.30206	-1.32713	-1.30206	-1.32713	-0.80130
17	-0.92024	-1.54225	0.02941	0.00861	0.28780	0.61490	0.16604	-1.51890	-1.54225	-1.51890	-1.54225	-0.92024

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.95549	0.97295	0.75207	0.75186	0.68878	0.47854	0.74938	0.96711	0.97295	0.96711	0.97295	0.95549
2	K08NDEPC	0.84237	0.97586	0.73992	0.73649	0.77727	0.59853	0.76992	0.98412	0.97586	0.98412	0.97586	0.84237
3	K08NDEPC	0.69672	0.90828	0.77300	0.76821	0.83791	0.67850	0.81327	0.92911	0.90828	0.92911	0.90828	0.69672
4	K10NDEPC	0.59948	0.83442	0.83924	0.83271	0.93041	0.80079	0.89091	0.85940	0.83442	0.85940	0.83442	0.59948
5	K12NDEPC	0.40930	0.68173	0.80210	0.79403	0.93168	0.85218	0.86632	0.71343	0.68173	0.71343	0.68173	0.40930
6	K14NDEPC	0.35957	0.62137	0.80091	0.79197	0.95016	0.90797	0.87254	0.65164	0.62137	0.65164	0.62137	0.35957
7	K16NDEPC	0.40998	0.61407	0.88423	0.87725	0.95569	0.90535	0.93327	0.63933	0.61407	0.63933	0.61407	0.40998
8	K20NDEPC	0.26660	0.50326	0.75630	0.74660	0.93673	0.97246	0.83877	0.53009	0.50326	0.53009	0.50326	0.26660
9	K24NDEPC	0.17212	0.38930	0.68135	0.67178	0.87761	0.96898	0.76806	0.41391	0.38930	0.41391	0.38930	0.17212
10	K28NDEPC	0.34491	0.37138	0.87853	0.88043	0.69994	0.65654	0.84681	0.38353	0.37138	0.38353	0.37138	0.34491
11	K32NDEPC	0.33813	0.28078	0.81177	0.81852	0.49702	0.39972	0.73259	0.28647	0.28078	0.28647	0.28078	0.33813
12	K36NDEPC	0.32866	0.30788	0.83827	0.84343	0.58628	0.52358	0.78090	0.31640	0.30788	0.31640	0.30788	0.32866
13	K40NDEPC	0.31931	0.39909	0.85156	0.85187	0.78436	0.79506	0.85581	0.41408	0.39909	0.41408	0.39909	0.31931
14	K46NDEPC	0.36518	0.35484	0.86784	0.87362	0.62719	0.55705	0.81448	0.36375	0.35484	0.36375	0.35484	0.36518
15	K50NDEPC	0.34272	0.38353	0.87158	0.87533	0.72572	0.70140	0.84981	0.39597	0.38353	0.39597	0.38353	0.34272
16	K60NDEPC	0.14297	0.34551	0.53940	0.53001	0.78748	0.92802	0.64127	0.36493	0.34551	0.36493	0.34551	0.14297
17	KGTNDEPC	0.14297	0.34551	0.53940	0.53001	0.78748	0.92802	0.64127	0.36493	0.34551	0.36493	0.34551	0.14297

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.36472	0.49569	0.70102	0.67585	0.64547	0.39720	0.72568	0.69272	0.49569	0.69272	0.49569	0.36472
2	0.32154	0.49717	0.68970	0.66204	0.72840	0.49679	0.74557	0.50138	0.49717	0.50138	0.49717	0.32154
3	0.26595	0.46274	0.72054	0.69055	0.78523	0.56316	0.78755	0.47336	0.46274	0.47336	0.46274	0.26595
4	0.21239	0.40403	0.76709	0.73299	0.88670	0.67593	0.87735	0.41613	0.40403	0.41613	0.40403	0.21239
5	0.14501	0.33010	0.73314	0.69895	0.88790	0.71931	0.85313	0.34545	0.33010	0.34545	0.33010	0.14501
6	0.08753	0.23743	0.67346	0.63739	0.93381	0.81802	0.82794	0.24900	0.23743	0.24900	0.23743	0.08753
7	0.01031	0.11118	0.61616	0.57573	0.81844	0.89367	0.76366	0.11575	0.11118	0.11575	0.11118	0.01031
8	-0.01767	0.04874	0.48139	0.44355	0.75260	0.91432	0.64045	0.05134	0.04874	0.05134	0.04874	-0.01767
9	-0.02321	0.01311	0.40285	0.36775	0.67026	0.87697	0.55493	0.01394	0.01311	0.01394	0.01311	-0.02321
10	-0.08593	-0.02658	0.45318	0.41351	0.48824	0.55571	0.55393	-0.02745	-0.02658	-0.02745	-0.02658	-0.08593
11	-0.27050	-0.16256	0.12366	0.07765	0.18815	0.22540	0.23773	-0.16585	-0.16256	-0.16585	-0.16256	-0.27050
12	-0.39214	-0.28973	-0.08977	-0.14560	0.08847	0.18967	0.06969	-0.29774	-0.28973	-0.29774	-0.28973	-0.39214
13	-0.39558	-0.39237	-0.11688	-0.17355	0.09759	0.26937	0.05297	-0.40710	-0.39237	-0.40710	-0.39237	-0.39558
14	-0.46952	-0.36418	-0.14595	-0.20584	0.06102	0.17534	0.02757	-0.37333	-0.36418	-0.37333	-0.36418	-0.46952
15	-0.62200	-0.58054	-0.45091	-0.52138	-0.15177	0.03042	-0.24031	-0.59937	-0.58054	-0.59937	-0.58054	-0.62200
16	-0.25946	-0.52299	-0.27906	-0.31570	-0.16469	0.04025	-0.18134	-0.55239	-0.52299	-0.55239	-0.52299	-0.25946
17	-0.25946	-0.52299	-0.27906	-0.31570	-0.16469	0.04025	-0.18134	-0.55239	-0.52299	-0.55239	-0.52299	-0.25946

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K04DVEPC	0.57258	0.44214	0.61649	0.64320	0.55796	0.44833	0.55796	0.45919	0.40218	0.40218	0.44214	0.53715
2	K06DVEPC	0.94765	0.95028	0.74598	0.59952	0.29254	-0.00541	0.29254	0.95617	0.93654	0.93654	0.95028	0.96907
3	K08DVEPC	0.95261	0.96744	0.81125	0.65740	0.35051	0.04167	0.35051	0.98514	0.94909	0.94909	0.96744	0.95427
4	K10DVEPC	0.83026	0.84464	0.73773	0.59177	0.31590	0.03947	0.31590	0.87031	0.80844	0.80844	0.84464	0.81816
5	K12DVEPC	0.84072	0.82583	0.88659	0.80627	0.59607	0.34254	0.59607	0.86568	0.83358	0.83358	0.82583	0.88547
6	K14DVEPC	0.90949	0.89635	0.85409	0.72977	0.46624	0.17822	0.46624	0.92084	0.86716	0.86716	0.89635	0.88207
7	K16DVEPC	0.89554	0.89499	0.78228	0.63435	0.34370	0.05220	0.34370	0.92036	0.86136	0.86136	0.89499	0.88785
8	K20DVEPC	0.84546	0.81526	0.91754	0.84976	0.63739	0.38993	0.63739	0.85612	0.81371	0.81371	0.81526	0.79884
9	K24DVEPC	0.78164	0.70007	0.95305	0.93600	0.79637	0.59706	0.79637	0.75053	0.67332	0.67332	0.70007	0.68722
10	K28DVEPC	0.35664	0.21301	0.71833	0.85352	0.94727	0.93581	0.94727	0.22392	0.19344	0.19344	0.21301	0.21388
11	K32DVEPC	0.32953	0.17675	0.59991	0.72574	0.80307	0.80203	0.80307	0.18653	0.15433	0.15433	0.17675	0.22840
12	K36DVEPC	0.32889	0.17853	0.63036	0.76804	0.85952	0.86157	0.85952	0.18711	0.15935	0.15935	0.17853	0.21469
13	K40DVEPC	0.48154	0.33601	0.69488	0.78862	0.80356	0.76777	0.80356	0.34801	0.30955	0.30955	0.33601	0.39894
14	K46DVEPC	0.34967	0.20316	0.67500	0.81088	0.90658	0.90555	0.90658	0.21068	0.18148	0.18148	0.20316	0.22528
15	K50DVEPC	0.37389	0.22960	0.69833	0.83172	0.92207	0.91415	0.92207	0.23583	0.20413	0.20413	0.22960	0.24707
16	K60DVEPC	0.41998	0.27840	0.73685	0.85978	0.95306	0.90822	0.95306	0.28682	0.25266	0.25266	0.27840	0.29229
17	KGTDVEPC	0.41998	0.27840	0.73685	0.85978	0.95306	0.90822	0.95306	0.28682	0.25266	0.25266	0.27840	0.29229

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.20860	0.14564	0.14674	0.14225	0.11592	0.07704	0.11592	0.14138	0.13216	0.13216	0.14564	0.20231
2	0.38778	0.35158	0.19944	0.14893	0.06827	-0.00104	0.06827	0.33066	0.34567	0.34567	0.35158	0.40996
3	0.53234	0.48879	0.29619	0.22301	0.11170	0.01098	0.11170	0.46524	0.47839	0.47839	0.48879	0.55130
4	0.53104	0.48845	0.30829	0.22977	0.11523	0.01191	0.11523	0.47044	0.46641	0.46641	0.48845	0.54101
5	0.62767	0.55744	0.43246	0.36542	0.25379	0.12063	0.25379	0.54620	0.56135	0.56135	0.55744	0.62170
6	0.77086	0.68689	0.47296	0.37549	0.22536	0.07125	0.22536	0.65959	0.66295	0.66295	0.68689	0.77292
7	0.75801	0.68645	0.43358	0.32668	0.16628	0.02089	0.16628	0.65983	0.65910	0.65910	0.68645	0.77867
8	0.82791	0.72180	0.58703	0.50515	0.35595	0.18011	0.35595	0.70850	0.71872	0.71872	0.72180	0.78095
9	0.75764	0.66858	0.65773	0.60020	0.47973	0.29748	0.47973	0.65213	0.64152	0.64152	0.66858	0.62397
10	0.26906	0.18614	0.58457	0.64537	0.67287	0.54980	0.67287	0.21213	0.16955	0.16955	0.18614	0.15235
11	0.06717	0.06647	0.49251	0.66015	0.78354	0.67949	0.78354	0.08992	0.05863	0.05863	0.06647	0.03268
12	-0.17702	-0.05265	0.21536	0.35263	0.47486	0.69143	0.47486	-0.02715	-0.04613	-0.04613	-0.05265	-0.13400
13	-0.28800	-0.11727	0.21023	0.33343	0.41652	0.57916	0.41652	-0.06810	-0.10632	-0.10632	-0.11727	-0.26819
14	-0.26459	-0.10003	0.13388	0.26477	0.38793	0.63343	0.38793	-0.06946	-0.08829	-0.08829	-0.10003	-0.19148
15	-0.35508	-0.15312	0.05086	0.17413	0.29307	0.55642	0.29307	-0.11622	-0.13485	-0.13485	-0.15312	-0.25930
16	-0.39917	-0.18585	0.05330	0.17961	0.29616	0.55249	0.29616	-0.14153	-0.16708	-0.16708	-0.18585	-0.30698
17	-0.39917	-0.18585	0.05330	0.17961	0.29616	0.55249	0.29616	-0.14153	-0.16708	-0.16708	-0.18585	-0.30698

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR INMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K04NVEPC	0.31172	0.24575	0.34207	0.32128	0.11371	0.14583	0.11371	0.22976	0.24369	0.24369	0.24575	0.33589
2	K06NVEPC	0.39510	0.39981	0.42031	0.38727	0.20579	-0.05688	0.20579	0.37902	0.39739	0.39739	0.39981	0.37712
3	K08NVEPC	0.58067	0.54919	0.61109	0.58947	0.39970	0.23210	0.39970	0.53584	0.54799	0.54799	0.54919	0.58281
4	K10NVEPC	0.70903	0.73627	0.73674	0.70948	0.55538	0.14251	0.55538	0.72282	0.73540	0.73540	0.73627	0.67644
5	K12NVEPC	0.75279	0.78576	0.77995	0.75401	0.61044	0.17198	0.61044	0.77378	0.78514	0.78514	0.78576	0.71681
6	K14NVEPC	0.81547	0.85501	0.84283	0.81916	0.69519	0.21151	0.69519	0.84567	0.85455	0.85455	0.85501	0.77411
7	K16NVEPC	0.85574	0.91268	0.88179	0.85952	0.76242	0.20991	0.76242	0.90571	0.91252	0.91252	0.91268	0.80427
8	K20NVEPC	0.84640	0.85864	0.88871	0.87513	0.73694	0.40231	0.73694	0.85818	0.85958	0.85958	0.85864	0.82624
9	K24NVEPC	0.92172	0.92850	0.95658	0.94584	0.84735	0.43090	0.84735	0.93077	0.92861	0.92861	0.92850	0.89587
10	K28NVEPC	0.96309	0.93674	0.99209	0.98932	0.93101	0.52407	0.93101	0.94233	0.93520	0.93520	0.93674	0.94288
11	K32NVEPC	0.96450	0.92050	0.99258	0.99218	0.93626	0.56370	0.93626	0.92754	0.91861	0.91861	0.92050	0.95165
12	K36NVEPC	0.95023	0.85990	0.97372	0.98032	0.93906	0.65716	0.93906	0.87031	0.85683	0.85683	0.85990	0.95583
13	K40NVEPC	0.94346	0.85893	0.96677	0.97497	0.95163	0.65119	0.95163	0.87008	0.85564	0.85564	0.85893	0.94461
14	K46NVEPC	0.74528	0.55439	0.74264	0.76637	0.80565	0.73073	0.80565	0.56977	0.54743	0.54743	0.55439	0.78820
15	K50NVEPC	0.62360	0.42854	0.59422	0.62461	0.72014	0.71663	0.72014	0.43115	0.41810	0.41810	0.42854	0.67270
16	K60NVEPC	0.43697	0.31808	0.39149	0.42293	0.57185	0.70826	0.57185	0.32634	0.31401	0.31401	0.31808	0.47001
17	KGTNVEPC	0.43697	0.31808	0.39149	0.42293	0.57185	0.70826	0.57185	0.32634	0.31401	0.31401	0.31808	0.47001

GARRISON TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR INNEDIATE CHANNEL CATEGORY - NEDIAN YEAR

OBS	JA_NVADJ	FB_NVADJ	MA_NVADJ	AP_NVADJ	MY_NVADJ	JN_NVADJ	JL_NVADJ	AU_NVADJ	SP_NVADJ	OC_NVADJ	NO_NVADJ	DE_NVADJ
1	0.19988	0.13667	0.13333	0.12034	0.03499	0.03840	0.03499	0.11616	0.13253	0.13253	0.13667	0.22088
2	0.33718	0.29595	0.21804	0.19307	0.08429	-0.01993	0.08429	0.25505	0.28764	0.28764	0.29593	0.33007
3	0.57894	0.47490	0.37036	0.34332	0.19125	0.09504	0.19125	0.42125	0.46339	0.46339	0.47490	0.56969
4	0.66574	0.67757	0.47519	0.43975	0.28281	0.06210	0.28281	0.60474	0.66180	0.66180	0.67757	0.61679
5	0.59872	0.75054	0.57114	0.53060	0.35292	0.08508	0.35292	0.73499	0.76808	0.76808	0.75054	0.54803
6	0.61128	0.78277	0.64062	0.59834	0.41718	0.10861	0.41718	0.83378	0.80284	0.80284	0.78277	0.55553
7	0.58902	0.78705	0.70308	0.65859	0.47994	0.11308	0.47994	0.87468	0.80987	0.80987	0.78705	0.52662
8	0.54852	0.71048	0.73034	0.69113	0.47814	0.22337	0.47814	0.80154	0.73354	0.73354	0.71048	0.50691
9	0.44136	0.63202	0.88451	0.84067	0.61859	0.26919	0.61859	0.74515	0.65918	0.65918	0.63202	0.39415
10	0.39510	0.58189	0.95871	0.91875	0.71031	0.34216	0.71031	0.70343	0.60944	0.60944	0.58189	0.34849
11	0.39127	0.56815	0.96195	0.92406	0.71637	0.36910	0.71637	0.68905	0.59507	0.59507	0.56815	0.34727
12	0.22034	0.40113	0.90090	0.94811	0.79684	0.47719	0.79684	0.52727	0.42875	0.42875	0.40113	0.17843
13	0.12988	0.33049	0.83911	0.88927	0.85054	0.49806	0.85054	0.46249	0.35978	0.35978	0.33049	0.08587
14	-0.09646	0.08488	0.52400	0.57944	0.78797	0.63904	0.78797	0.18287	0.10617	0.10617	0.08488	-0.14492
15	-0.08071	0.06562	0.41928	0.47225	0.70433	0.62671	0.70433	0.13838	0.08109	0.08109	0.06562	-0.12349
16	-0.05656	0.04870	0.27623	0.31977	0.55930	0.61940	0.55930	0.10474	0.06090	0.06090	0.04870	-0.08642
17	-0.05856	0.04744	0.27514	0.31864	0.55804	0.62073	0.55804	0.10356	0.05968	0.05968	0.04744	-0.08862

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NIDDLE CHANNEL CATEGORY - NEDIAN YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K04TVEPC	0.56793	0.69585	0.88195	0.91663	0.88883	0.95907	0.88883	0.91525	0.70485	0.70485	0.69585	0.53337
2	K06TVEPC	0.92016	0.87057	0.75916	0.69837	0.76972	0.63517	0.76972	0.79724	0.86535	0.86535	0.87057	0.92270
3	K08TVEPC	0.96198	0.88383	0.61395	0.54183	0.64959	0.51337	0.64959	0.72833	0.87527	0.87527	0.88383	0.97003
4	K10TVEPC	0.98298	0.91742	0.57163	0.50945	0.63700	0.54036	0.63700	0.75663	0.90930	0.90930	0.91742	0.98729
5	K12TVEPC	0.98311	0.90611	0.50072	0.43621	0.58348	0.49022	0.58348	0.71275	0.89437	0.89437	0.90611	0.98975
6	K14TVEPC	0.97337	0.89173	0.46296	0.40202	0.56682	0.48999	0.56682	0.69621	0.88235	0.88235	0.89173	0.98158
7	K16TVEPC	0.95926	0.86186	0.40760	0.34353	0.52536	0.44387	0.52536	0.64526	0.85070	0.85070	0.86186	0.97092
8	K20TVEPC	0.92076	0.80414	0.50740	0.44181	0.63512	0.45770	0.63512	0.60986	0.79188	0.79188	0.80414	0.93796
9	K24TVEPC	0.92863	0.81363	0.52240	0.45174	0.62880	0.45547	0.62880	0.62107	0.80170	0.80170	0.81363	0.94584
10	K28TVEPC	0.53638	0.65827	0.87783	0.91618	0.89728	0.96509	0.89728	0.88995	0.66970	0.66970	0.65827	0.50374
11	K32TVEPC	0.70381	0.74718	0.94288	0.93528	0.94474	0.87654	0.94474	0.87649	0.75157	0.75157	0.74718	0.68842
12	K36TVEPC	0.75061	0.77241	0.93119	0.91308	0.93807	0.84920	0.93807	0.86956	0.77471	0.77471	0.77241	0.73919
13	K40TVEPC	0.78896	0.80711	0.91066	0.89047	0.92542	0.84270	0.92542	0.88339	0.80871	0.80871	0.80711	0.77769
14	K46TVEPC	0.83551	0.84518	0.87802	0.85251	0.90257	0.82158	0.90257	0.88967	0.84563	0.84563	0.84518	0.82542
15	K50TVEPC	0.85419	0.86868	0.85830	0.83427	0.88778	0.82333	0.88778	0.90472	0.86922	0.86922	0.86868	0.84250
16	K60TVEPC	0.86187	0.86449	0.85415	0.82334	0.87731	0.79734	0.87731	0.88637	0.86414	0.86414	0.86449	0.85301
17	KGTTVEPC	0.86187	0.86449	0.85415	0.82334	0.87731	0.79734	0.87731	0.88637	0.86414	0.86414	0.86449	0.85301

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NIDDLE CHANNEL CATEGORY - NEDIAN YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.35725	0.37291	0.17103	0.16641	0.14808	0.12520	0.14808	0.39148	0.36921	0.36921	0.37291	0.34459
2	0.90978	0.73541	0.23139	0.19928	0.20156	0.13033	0.20156	0.53598	0.71245	0.71245	0.73541	0.90844
3	0.66014	0.77559	0.24866	0.20544	0.22602	0.13997	0.22602	0.65063	0.79301	0.79301	0.77559	0.63119
4	0.23964	0.45827	0.30948	0.25821	0.29629	0.19694	0.29629	0.60971	0.48883	0.48883	0.45827	0.19380
5	0.03255	0.28887	0.30362	0.24761	0.30395	0.20010	0.30395	0.47225	0.32390	0.32390	0.28887	-0.01989
6	-0.12890	0.15880	0.30434	0.24741	0.32012	0.21684	0.32012	0.38292	0.19792	0.19792	0.15880	-0.18661
7	-0.18189	0.11137	0.27514	0.21708	0.30466	0.20169	0.30466	0.32981	0.15031	0.15031	0.11137	-0.24160
8	-0.32701	-0.00982	0.36840	0.30030	0.39616	0.22370	0.39616	0.24307	0.03076	0.03076	-0.00982	-0.39287
9	-0.38291	-0.04969	0.38850	0.31450	0.40174	0.22802	0.40174	0.22339	-0.00703	-0.00703	-0.04969	-0.45172
10	-0.33741	-0.16208	0.71146	0.69514	0.62477	0.52655	0.62477	0.18896	-0.12672	-0.12672	-0.16208	-0.35269
11	-1.39278	-1.04572	0.72920	0.79656	0.89391	0.72379	0.89391	-0.61841	-0.98702	-0.98702	-1.04572	-1.43643
12	-1.48654	-1.08202	0.71973	0.77726	0.88722	0.70147	0.88722	-0.61441	-1.01839	-1.01839	-1.08202	-1.54350
13	-1.57317	-1.13997	0.70005	0.75453	0.87194	0.69848	0.87194	-0.63232	-1.07220	-1.07220	-1.13997	-1.63471
14	-1.67982	-1.20570	0.67048	0.71829	0.84645	0.68380	0.84645	-0.66483	-1.13280	-1.13280	-1.20570	-1.74907
15	-1.73409	-1.25374	0.65024	0.69822	0.82798	0.68860	0.82798	-0.66980	-1.17857	-1.17857	-1.25374	-1.80218
16	-1.74968	-1.24770	0.64710	0.68906	0.81822	0.66685	0.81822	-0.65622	-1.17169	-1.17169	-1.24770	-1.82468
17	-2.02594	-1.48445	0.56270	0.61290	0.74374	0.71989	0.74374	-0.84941	-1.40234	-1.40234	-1.48445	-2.10550

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_UVEPC	FB_UVEPC	MA_UVEPC	AP_UVEPC	MY_UVEPC	JN_UVEPC	JL_UVEPC	AU_UVEPC	SP_UVEPC	OC_UVEPC	NO_UVEPC	DE_UVEPC
1	K04UVEPC	0.45866	0.44268	0.40190	0.34322	0.22855	-0.33004	0.22855	0.32709	0.44320	0.44320	0.44268	0.48350
2	K08UVEPC	0.59586	0.63445	0.61217	0.57341	0.46751	-0.11347	0.46751	0.55590	0.65350	0.65350	0.63445	0.68710
3	K08UVEPC	0.61924	0.66440	0.67652	0.65548	0.58618	0.08434	0.58618	0.63002	0.68626	0.68626	0.66440	0.62531
4	K10UVEPC	0.65589	0.68231	0.68326	0.66204	0.63283	0.16322	0.63283	0.66598	0.69795	0.69795	0.68231	0.64047
5	K12UVEPC	0.63672	0.63888	0.65899	0.64549	0.63977	0.25332	0.63977	0.63629	0.64764	0.64764	0.63888	0.64091
6	K14UVEPC	0.66195	0.64366	0.65102	0.63579	0.65189	0.29286	0.65189	0.64226	0.64555	0.64555	0.64366	0.66689
7	K16UVEPC	0.95887	0.88597	0.79701	0.75773	0.80528	0.36850	0.80528	0.84226	0.86751	0.86751	0.88597	0.93056
8	K20UVEPC	0.55123	0.59486	0.70378	0.70104	0.55500	0.08997	0.55500	0.53500	0.62108	0.62108	0.59486	0.56256
9	K24UVEPC	0.60726	0.63600	0.74946	0.74661	0.61280	0.14464	0.61280	0.57968	0.65849	0.65849	0.63600	0.61949
10	K28UVEPC	0.85296	0.83413	0.79485	0.75296	0.71818	0.12549	0.71818	0.77625	0.83686	0.83686	0.83413	0.86775
11	K32UVEPC	0.89630	0.86223	0.78488	0.72687	0.70550	0.07661	0.70550	0.79263	0.85743	0.85743	0.86223	0.91216
12	K36UVEPC	0.88448	0.85891	0.85185	0.80479	0.72590	0.12111	0.72590	0.76276	0.85251	0.85251	0.85891	0.89664
13	K40UVEPC	0.82212	0.82543	0.90813	0.87702	0.74557	0.19260	0.74557	0.73122	0.83062	0.83062	0.82543	0.83639
14	K44UVEPC	0.75295	0.72789	0.85210	0.82190	0.68211	0.11936	0.68211	0.64312	0.73635	0.73635	0.72789	0.75290
15	K50UVEPC	0.68758	0.68648	0.87205	0.85889	0.68665	0.18235	0.68665	0.59747	0.69868	0.69868	0.68648	0.70794
16	K60UVEPC	0.63792	0.64487	0.89456	0.90548	0.71593	0.31775	0.71593	0.56410	0.66100	0.66100	0.64487	0.65527
17	K8TUVEPC	0.63792	0.64487	0.89456	0.90548	0.71593	0.31775	0.71593	0.56410	0.66100	0.66100	0.64487	0.65527

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_UVADJ	FB_UVADJ	MA_UVADJ	AP_UVADJ	MY_UVADJ	JN_UVADJ	JL_UVADJ	AU_UVADJ	SP_UVADJ	OC_UVADJ	NO_UVADJ	DE_UVADJ
1	0.23368	0.25048	0.38919	0.32514	0.18970	-0.27203	0.18970	0.20905	0.25883	0.25883	0.25048	0.24633
2	0.38256	0.35915	0.59281	0.54320	0.38804	-0.09352	0.38804	0.35329	0.38165	0.38165	0.35915	0.38930
3	0.31549	0.37610	0.65512	0.62095	0.48654	0.06951	0.48654	0.40266	0.40077	0.40077	0.37610	0.31858
4	0.31759	0.36965	0.67287	0.63779	0.53416	0.13681	0.53416	0.41028	0.39084	0.39084	0.36965	0.31981
5	0.30851	0.34613	0.64896	0.62185	0.54002	0.21253	0.54002	0.39199	0.36268	0.36268	0.34613	0.31036
6	0.25293	0.28549	0.61774	0.61782	0.58731	0.26201	0.58731	0.33579	0.29889	0.29889	0.28549	0.25482
7	0.16839	0.22160	0.65216	0.63949	0.79489	0.36615	0.79489	0.28575	0.23596	0.23596	0.22160	0.16848
8	0.05338	0.10060	0.53737	0.55412	0.52182	0.08526	0.52182	0.14057	0.11925	0.11925	0.10060	0.05448
9	0.02946	0.06891	0.54150	0.56017	0.55461	0.13201	0.55461	0.11867	0.08692	0.08692	0.06891	0.02087
10	-0.06105	0.00591	0.52123	0.51457	0.60789	0.10552	0.60789	0.08430	0.02678	0.02678	0.00591	-0.06211
11	-0.51891	-0.41475	0.25469	0.26235	0.39783	0.04397	0.39783	-0.28110	-0.38584	-0.38584	-0.41475	-0.52809
12	-0.83234	-0.71235	0.07595	0.10526	0.26296	0.04526	0.26296	-0.52268	-0.67689	-0.67689	-0.71235	-0.84379
13	-0.88028	-0.71628	0.05620	0.09124	0.25260	0.06749	0.25260	-0.52918	-0.69274	-0.69274	-0.71628	-0.82230
14	-0.75221	-0.66339	0.02885	0.06296	0.21471	0.03898	0.21471	-0.49076	-0.64430	-0.64430	-0.66339	-0.77271
15	-1.04078	-0.94752	-0.24660	-0.20025	0.02978	0.01040	0.02978	-0.72179	-0.93484	-0.93484	-0.94752	-1.07160
16	-0.96560	-0.89008	-0.25297	-0.21111	0.03105	0.01813	0.03105	-0.68147	-0.88442	-0.88442	-0.89008	-0.99187
17	-0.96560	-0.89008	-0.25297	-0.21111	0.03105	0.01813	0.03105	-0.68147	-0.88442	-0.88442	-0.89008	-0.99187

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K040VEPC	0.50305	0.47305	0.62660	0.56228	0.45509	0.44833	0.43754	0.54808	0.47769	0.52535	0.47305	0.57270
2	K060VEPC	0.93425	0.95006	0.44017	0.26343	0.04880	-0.00541	-0.06508	0.74277	0.91690	0.68226	0.95006	0.86063
3	K080VEPC	0.96194	0.98776	0.48810	0.31185	0.11639	0.04167	-0.02884	0.83282	0.98267	0.78407	0.98776	0.89878
4	K100VEPC	0.85396	0.88710	0.43297	0.27497	0.12546	0.03947	-0.02848	0.77415	0.91117	0.73600	0.88710	0.79948
5	K120VEPC	0.84795	0.87112	0.68361	0.55887	0.40650	0.34254	0.27384	0.91515	0.89473	0.91290	0.87112	0.86006
6	K140VEPC	0.91848	0.93401	0.58205	0.42759	0.26051	0.17822	0.11143	0.87645	0.96216	0.84298	0.93401	0.89100
7	K160VEPC	0.90527	0.93508	0.47838	0.30378	0.13472	0.05220	-0.01603	0.80999	0.95776	0.76806	0.93508	0.84721
8	K200VEPC	0.84980	0.86539	0.72905	0.60335	0.45544	0.38993	0.32335	0.94736	0.89871	0.94024	0.86539	0.88178
9	K240VEPC	0.78162	0.74608	0.87440	0.77715	0.65832	0.59706	0.54564	0.94172	0.80488	0.93208	0.74608	0.88856
10	K280VEPC	0.32868	0.23239	0.93486	0.95877	0.94348	0.93581	0.92809	0.66077	0.28499	0.68712	0.23239	0.55399
11	K320VEPC	0.27079	0.19429	0.79994	0.81913	0.79095	0.80203	0.80521	0.52208	0.21869	0.53812	0.19429	0.45378
12	K360VEPC	0.27714	0.19355	0.84859	0.87447	0.85332	0.86157	0.86223	0.56095	0.22307	0.58256	0.19355	0.47618
13	K400VEPC	0.42363	0.35659	0.82767	0.81277	0.74897	0.74777	0.73978	0.62586	0.37789	0.63020	0.35659	0.58022
14	K440VEPC	0.30516	0.21720	0.89198	0.91897	0.90283	0.90555	0.90138	0.60868	0.25148	0.63298	0.21720	0.51344
15	K500VEPC	0.33226	0.26380	0.90906	0.93261	0.91547	0.91415	0.90708	0.63642	0.27986	0.66012	0.26380	0.54040
16	K600VEPC	0.38118	0.29470	0.92689	0.94085	0.91553	0.90822	0.89693	0.67835	0.33288	0.69956	0.29470	0.58450
17	K8TDVEPC	0.38118	0.29470	0.92689	0.94085	0.91553	0.90822	0.89693	0.67835	0.33288	0.69956	0.29470	0.58450

GARRISON TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.16609	0.14265	0.13384	0.11762	0.08738	0.07704	0.07746	0.14787	0.13711	0.14840	0.14265	0.18954
2	0.34647	0.32179	0.10560	0.06190	0.01052	-0.00104	-0.01294	0.22509	0.29559	0.21647	0.32179	0.31992
3	0.48717	0.45687	0.15992	0.10007	0.03428	0.01098	-0.00783	0.34466	0.43263	0.33973	0.45687	0.45626
4	0.49501	0.46964	0.16236	0.10099	0.04229	0.01191	-0.00885	0.36670	0.45914	0.36501	0.46964	0.46453
5	0.57333	0.53832	0.29923	0.23958	0.15994	0.12063	0.09935	0.50599	0.52626	0.52847	0.53832	0.58331
6	0.70552	0.65525	0.28924	0.20810	0.11636	0.07125	0.04590	0.55015	0.64248	0.55400	0.65525	0.68603
7	0.69598	0.65458	0.23595	0.14797	0.06023	0.02089	-0.00661	0.50888	0.64010	0.50521	0.65458	0.65289
8	0.75416	0.70142	0.41856	0.33925	0.23504	0.18011	0.15387	0.68703	0.69333	0.71391	0.70142	0.78461
9	0.74824	0.65230	0.54164	0.47136	0.36647	0.29748	0.28008	0.73668	0.66981	0.76339	0.65230	0.85263
10	0.28634	0.22520	0.68269	0.68572	0.61951	0.54980	0.56176	0.60952	0.27966	0.66361	0.22520	0.48115
11	0.10079	0.09973	0.75749	0.79345	0.74870	0.67949	0.70282	0.34969	0.12792	0.32680	0.09973	0.16714
12	-0.08324	-0.01953	0.43435	0.47442	0.56518	0.69163	0.66093	0.06744	0.00007	0.01859	-0.01953	-0.14562
13	-0.15021	-0.05365	0.39460	0.41302	0.47244	0.57916	0.54556	0.06750	-0.01771	-0.00914	-0.05365	-0.20898
14	-0.15206	-0.06119	0.34232	0.38330	0.49404	0.63363	0.59526	-0.02529	-0.04320	-0.08702	-0.06119	-0.25890
15	-0.22367	-0.10763	0.24601	0.28563	0.40784	0.55642	0.51395	-0.11741	-0.09063	-0.18954	-0.10763	-0.36725
16	-0.25687	-0.13029	0.25042	0.28775	0.48750	0.55249	0.50787	-0.12552	-0.10800	-0.20127	-0.13029	-0.39761
17	-0.25687	-0.13029	0.25042	0.28775	0.48750	0.55249	0.50787	-0.12552	-0.10800	-0.20127	-0.13029	-0.39761

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_HVEPC	FB_HVEPC	MA_HVEPC	AP_HVEPC	MY_HVEPC	JN_HVEPC	JL_HVEPC	AU_HVEPC	SP_HVEPC	OC_HVEPC	NO_HVEPC	DE_HVEPC
1	K04HVEPC	0.24735	0.22520	0.39704	0.38643	0.05687	0.14583	0.19341	0.32196	0.24682	0.35687	0.22520	0.24844
2	K06HVEPC	0.40154	0.37331	0.45964	0.37309	-0.01883	-0.05688	-0.01232	0.41434	0.39649	0.47039	0.37331	0.40254
3	K08HVEPC	0.54967	0.53202	0.64912	0.57127	0.25006	0.23210	0.26136	0.60132	0.54888	0.63560	0.53202	0.54941
4	K10HVEPC	0.73625	0.71922	0.75324	0.68934	0.27632	0.14251	0.15301	0.74254	0.73421	0.78535	0.71922	0.73530
5	K12HVEPC	0.78546	0.77063	0.79170	0.73394	0.32308	0.17198	0.17527	0.78752	0.78374	0.82767	0.77063	0.78421
6	K14HVEPC	0.85454	0.84339	0.84629	0.79927	0.39494	0.21151	0.20434	0.85260	0.85480	0.88800	0.84339	0.85309
7	K16HVEPC	0.91188	0.90616	0.87389	0.83976	0.43628	0.20991	0.19195	0.89685	0.91316	0.92914	0.90616	0.91009
8	K20HVEPC	0.85685	0.85832	0.88673	0.84471	0.51845	0.40231	0.36721	0.90518	0.86445	0.91965	0.85832	0.85418
9	K24HVEPC	0.92752	0.93220	0.94346	0.91839	0.60853	0.43090	0.38602	0.97311	0.93977	0.98140	0.93220	0.92567
10	K28HVEPC	0.93747	0.94548	0.97857	0.97048	0.72987	0.52407	0.47531	0.98819	0.95733	0.98588	0.94548	0.93760
11	K32HVEPC	0.92161	0.93129	0.97951	0.97331	0.75909	0.56370	0.51312	0.98459	0.94397	0.97553	0.93129	0.92198
12	K36HVEPC	0.86230	0.87557	0.96388	0.96519	0.82949	0.65716	0.60478	0.95280	0.89096	0.93093	0.87557	0.86406
13	K40HVEPC	0.86157	0.87567	0.95487	0.96337	0.83995	0.65119	0.59679	0.94533	0.89117	0.92156	0.87567	0.86359
14	K44HVEPC	0.56107	0.57796	0.74385	0.77352	0.86648	0.73073	0.69096	0.68711	0.60114	0.63774	0.57796	0.56754
15	K50HVEPC	0.43883	0.43630	0.62226	0.67350	0.89008	0.71663	0.74157	0.50651	0.46304	0.45999	0.43630	0.44903
16	K60HVEPC	0.32211	0.33038	0.41856	0.49148	0.79044	0.70826	0.74151	0.30241	0.32027	0.25654	0.33038	0.32616
17	KGTHVEPC	0.32211	0.33038	0.41856	0.49148	0.79044	0.70826	0.74151	0.30241	0.32027	0.25654	0.33038	0.32616

GARRISON TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_HVADJ	FB_HVADJ	MA_HVADJ	AP_HVADJ	MY_HVADJ	JN_HVADJ	JL_HVADJ	AU_HVADJ	SP_HVADJ	OC_HVADJ	NO_HVADJ	DE_HVADJ
1	0.14074	0.11125	0.12894	0.09486	0.01614	0.03840	0.05188	0.14330	0.12022	0.14678	0.11125	0.14471
2	0.30409	0.24545	0.19868	0.15372	-0.00711	-0.01993	-0.00440	0.24545	0.25703	0.29258	0.24545	0.31207
3	0.48632	0.40867	0.32779	0.27498	0.11036	0.09504	0.10902	0.41615	0.41569	0.46187	0.40867	0.49759
4	0.69322	0.58795	0.40480	0.35312	0.12978	0.06210	0.06792	0.54689	0.59175	0.68733	0.58795	0.70873
5	0.73127	0.71524	0.48305	0.42685	0.17228	0.08508	0.08833	0.65852	0.71717	0.72669	0.71524	0.71025
6	0.76090	0.81248	0.53596	0.48249	0.21860	0.10861	0.10689	0.74000	0.81189	0.80926	0.81248	0.75719
7	0.76236	0.89460	0.58057	0.53178	0.25331	0.11308	0.10533	0.81656	0.90983	0.88826	0.89460	0.79578
8	0.68576	0.82263	0.60717	0.55133	0.31026	0.22337	0.20769	0.84943	0.84117	0.90616	0.82263	0.65936
9	0.60304	0.77191	0.72688	0.67445	0.40975	0.26919	0.24566	0.91874	0.79367	0.87494	0.77191	0.57224
10	0.55244	0.73293	0.78777	0.74484	0.51362	0.34216	0.31612	0.88592	0.75861	0.82777	0.73293	0.52108
11	0.53935	0.71865	0.79096	0.74932	0.53572	0.36910	0.34225	0.87956	0.74475	0.81750	0.71865	0.50868
12	0.37166	0.55842	0.86318	0.82390	0.64921	0.47719	0.44736	0.73623	0.58531	0.66220	0.55842	0.34031
13	0.29931	0.49492	0.90068	0.86616	0.69243	0.49806	0.46497	0.66863	0.52167	0.59226	0.49492	0.26622
14	0.06194	0.20772	0.68544	0.75183	0.81675	0.63904	0.61555	0.35861	0.22993	0.28571	0.20772	0.03725
15	0.04844	0.15681	0.57339	0.65461	0.83899	0.62671	0.66063	0.26435	0.17711	0.20428	0.15681	0.02948
16	0.03556	0.11874	0.38569	0.47770	0.74507	0.61940	0.66059	0.15783	0.12250	0.11493	0.11874	0.02141
17	0.03425	0.11758	0.38472	0.47662	0.74667	0.62073	0.66201	0.15687	0.12139	0.11407	0.11758	0.02005

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	KD4TVEPC	0.68354	0.94463	0.88417	0.88624	0.89700	0.95907	0.90882	0.94823	0.94883	0.92107	0.94463	0.67144
2	KD6TVEPC	0.87684	0.74218	0.75795	0.77429	0.75097	0.63517	0.64429	0.82534	0.79390	0.91640	0.74218	0.88102
3	KD8TVEPC	0.89359	0.65429	0.61996	0.64902	0.66427	0.51337	0.54154	0.69603	0.70742	0.83645	0.65429	0.90137
4	K10TVEPC	0.92693	0.68273	0.58699	0.62819	0.69110	0.54036	0.57547	0.67375	0.72907	0.83522	0.68273	0.95448
5	K12TVEPC	0.91523	0.63245	0.52228	0.57077	0.65406	0.49022	0.53683	0.60887	0.67915	0.78704	0.63245	0.92647
6	K14TVEPC	0.90288	0.61571	0.48888	0.54724	0.65602	0.48999	0.54356	0.57749	0.66106	0.76446	0.61571	0.91220
7	K16TVEPC	0.87476	0.56104	0.43691	0.50206	0.62336	0.44387	0.50834	0.52222	0.60708	0.71416	0.56104	0.88991
8	K20TVEPC	0.81776	0.52870	0.55209	0.61683	0.66525	0.45770	0.53952	0.58034	0.58399	0.72211	0.52870	0.82951
9	K24TVEPC	0.82664	0.53961	0.55646	0.61363	0.65476	0.45547	0.52782	0.59667	0.59657	0.73950	0.53961	0.83776
10	K28TVEPC	0.64771	0.92201	0.88521	0.89137	0.90186	0.96509	0.91975	0.93800	0.92737	0.90295	0.92201	0.63537
11	K32TVEPC	0.74310	0.87669	0.94561	0.94875	0.89490	0.87654	0.85423	0.98350	0.90789	0.96911	0.87669	0.73693
12	K36TVEPC	0.77096	0.85920	0.95396	0.96136	0.88869	0.84920	0.83426	0.97396	0.89655	0.97206	0.85920	0.76741
13	K40TVEPC	0.80645	0.86753	0.91616	0.92849	0.89035	0.84270	0.83167	0.96325	0.90483	0.97936	0.86753	0.80367
14	K44TVEPC	0.84577	0.86544	0.88500	0.90185	0.88429	0.82158	0.81669	0.94137	0.90382	0.98114	0.86544	0.84420
15	K50TVEPC	0.86922	0.87870	0.86627	0.88555	0.88606	0.82333	0.81875	0.93128	0.91478	0.98629	0.87870	0.86761
16	K60TVEPC	0.86588	0.85614	0.85975	0.87715	0.86469	0.79734	0.79337	0.92290	0.89598	0.97776	0.85614	0.86513
17	K8TTVEPC	0.86588	0.85614	0.85975	0.87715	0.86469	0.79734	0.79337	0.92290	0.89598	0.97776	0.85614	0.86513

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.37719	0.38077	0.15125	0.14828	0.14843	0.12520	0.14084	0.25572	0.36732	0.31871	0.38077	0.38069
2	0.76851	0.47021	0.20379	0.20363	0.19532	0.13033	0.15694	0.34984	0.48307	0.49840	0.47021	0.78512
3	0.75734	0.55081	0.22150	0.22680	0.22958	0.13997	0.17528	0.39202	0.57196	0.60449	0.55081	0.73540
4	0.42584	0.59715	0.28034	0.29344	0.31928	0.19694	0.24899	0.50727	0.67016	0.80687	0.59715	0.38976
5	0.25131	0.46778	0.27936	0.29861	0.33841	0.20010	0.26014	0.51341	0.53621	0.72254	0.46778	0.21804
6	0.11681	0.39009	0.28350	0.31040	0.36800	0.21684	0.28556	0.52794	0.45459	0.63219	0.39009	0.07114
7	0.06929	0.33489	0.26016	0.29340	0.35906	0.20169	0.27422	0.49021	0.39610	0.54814	0.33489	0.02343
8	-0.05398	0.25950	0.25360	0.28640	0.41216	0.22370	0.31305	0.57472	0.32154	0.50870	0.25950	-0.10182
9	-0.09603	0.24500	0.26505	0.29574	0.41551	0.22802	0.31369	0.57627	0.30747	0.49769	0.24500	-0.14602
10	-0.19857	0.29074	0.63289	0.62332	0.62373	0.52655	0.59572	0.81879	0.35428	0.50006	0.29074	-0.23484
11	-1.10754	-0.48078	0.86801	0.89340	0.85310	0.72379	0.83738	0.28934	-0.40738	-0.18291	-0.48078	-1.16900
12	-1.15008	-0.47310	0.85694	0.88606	0.84682	0.70147	0.81812	0.28590	-0.40312	-0.18427	-0.47310	-1.21839
13	-1.21261	-0.48522	0.83723	0.87060	0.84523	0.69848	0.81855	0.27717	-0.41439	-0.19295	-0.48522	-1.28577
14	-1.28400	-0.49523	0.80478	0.84166	0.83563	0.68380	0.80694	0.26419	-0.42314	-0.20224	-0.49523	-1.36321
15	-1.33452	-0.51180	0.78313	0.82183	0.83274	0.68060	0.81293	0.25355	-0.43928	-0.21348	-0.51180	-1.41630
16	-1.32940	-0.49866	0.77726	0.81404	0.81454	0.66685	0.78773	0.25127	-0.43025	-0.21206	-0.49866	-1.41225
17	-1.57288	-0.67451	0.70229	0.73926	0.76146	0.71989	0.73637	0.12444	-0.60700	-0.38447	-0.67451	-1.66220

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	KD4NVEPC	0.42693	0.28063	0.22369	0.25282	-0.09212	-0.33004	-0.20878	0.42852	0.32589	0.27931	0.28063	0.40209
2	KD6NVEPC	0.60596	0.50778	0.49925	0.49521	0.14509	-0.11347	0.03421	0.63589	0.58979	0.58454	0.50778	0.57233
3	KD8NVEPC	0.63906	0.59311	0.63033	0.60998	0.31320	0.08434	0.21933	0.69754	0.68377	0.70574	0.59311	0.61211
4	K10NVEPC	0.66480	0.63700	0.65598	0.64987	0.37139	0.16322	0.28272	0.70766	0.71558	0.70784	0.63700	0.64612
5	K12NVEPC	0.63027	0.61558	0.66109	0.65245	0.42831	0.25332	0.35431	0.68206	0.68867	0.69357	0.61558	0.62120
6	K14NVEPC	0.64180	0.62506	0.65774	0.66016	0.45210	0.29286	0.38244	0.67661	0.68891	0.67338	0.62506	0.63895
7	K16NVEPC	0.89918	0.81575	0.75959	0.80674	0.54196	0.36830	0.45433	0.86176	0.86951	0.75644	0.81575	0.90680
8	K20NVEPC	0.56501	0.48961	0.67009	0.59286	0.33521	0.08997	0.24795	0.71383	0.61961	0.77943	0.48961	0.53393
9	K24NVEPC	0.61058	0.53600	0.72997	0.64926	0.39120	0.14464	0.30217	0.76212	0.66733	0.82484	0.53600	0.58346
10	K28NVEPC	0.82619	0.73685	0.71482	0.73614	0.37656	0.12349	0.25917	0.83470	0.81390	0.75833	0.73685	0.80891
11	K32NVEPC	0.85772	0.75239	0.67260	0.72004	0.33008	0.07661	0.20364	0.82998	0.81284	0.70326	0.75239	0.84613
12	K36NVEPC	0.85564	0.71461	0.74523	0.75108	0.38698	0.12111	0.26318	0.89147	0.80763	0.80088	0.71461	0.84507
13	K40NVEPC	0.80801	0.67640	0.81826	0.78019	0.46004	0.19260	0.34517	0.93514	0.80169	0.86618	0.67640	0.78686
14	K44NVEPC	0.71009	0.59561	0.75078	0.72132	0.38964	0.11936	0.27052	0.85998	0.70754	0.77971	0.59561	0.68614
15	K50NVEPC	0.66635	0.54766	0.79857	0.72975	0.45059	0.18235	0.34296	0.87228	0.68526	0.84705	0.54766	0.64123
16	K60NVEPC	0.62369	0.51587	0.87272	0.76124	0.56538	0.31775	0.48012	0.88432	0.67929	0.93258	0.51587	0.59955
17	K8TNVEPC	0.62369	0.51587	0.87272	0.76124	0.56538	0.31775	0.48012	0.88432	0.67929	0.93258	0.51587	0.59955

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_WWADJ	FB_WWADJ	MA_WWADJ	AP_WWADJ	MY_WWADJ	JN_WWADJ	JL_WWADJ	AU_WWADJ	SP_WWADJ	OC_WWADJ	NO_WWADJ	DE_WWADJ
1	0.25385	0.18424	0.20788	0.21547	-0.07646	-0.27203	-0.17304	0.38520	0.21265	0.18338	0.18424	0.21264
2	0.33188	0.33338	0.46395	0.42204	0.12043	-0.09352	0.02835	0.57161	0.38723	0.38378	0.33338	0.30266
3	0.39001	0.38940	0.58576	0.51985	0.25996	0.06951	0.18179	0.62702	0.44893	0.44335	0.38940	0.32370
4	0.34774	0.40371	0.61992	0.56323	0.31349	0.13681	0.23830	0.62292	0.45352	0.44861	0.40371	0.32558
5	0.32968	0.39014	0.62475	0.56547	0.36153	0.21253	0.29864	0.60038	0.43646	0.43957	0.39014	0.31302
6	0.27186	0.33862	0.65202	0.61069	0.40731	0.26201	0.34407	0.54455	0.37321	0.36480	0.33862	0.25757
7	0.20474	0.29410	0.65777	0.77445	0.53497	0.36615	0.44912	0.55244	0.31349	0.27272	0.29410	0.18560
8	0.08229	0.13936	0.54509	0.54059	0.31517	0.08526	0.23349	0.42608	0.17636	0.22185	0.13936	0.06490
9	0.05133	0.12205	0.56041	0.56856	0.35405	0.13201	0.27394	0.41721	0.15195	0.18782	0.12205	0.03455
10	-0.01522	0.09787	0.50641	0.60034	0.31873	0.10552	0.21979	0.39203	0.10811	0.10073	0.09787	-0.03614
11	-0.43986	-0.24413	0.26374	0.37833	0.18613	0.06397	0.11524	0.07874	-0.26375	-0.22819	-0.24413	-0.46152
12	-0.74068	-0.46511	0.12598	0.23913	0.14018	0.04526	0.09594	-0.15389	-0.52565	-0.52126	-0.46511	-0.76298
13	-0.73259	-0.46591	0.11465	0.22962	0.15586	0.06749	0.11775	-0.19052	-0.55220	-0.59663	-0.46591	-0.74312
14	-0.67567	-0.43343	0.08499	0.19449	0.12265	0.03898	0.08579	-0.20262	-0.51488	-0.56760	-0.43343	-0.67723
15	-0.94861	-0.63911	-0.15225	-0.00659	0.01954	0.01040	0.01582	-0.51957	-0.79969	-0.98849	-0.63911	-0.94137
16	-0.88788	-0.60201	-0.16638	-0.00687	0.02452	0.01813	0.02215	-0.52674	-0.79272	-1.00830	-0.60201	-0.88017
17	-0.88788	-0.60201	-0.16638	-0.00687	0.02452	0.01813	0.02215	-0.52674	-0.79272	-1.00830	-0.60201	-0.88017

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K04DVEPC	0.59512	0.59460	0.55414	0.54808	0.64068	0.45171	0.61649	0.60689	0.59460	0.60689	0.59460	0.59512
2	K08DVEPC	0.96634	0.89728	0.75677	0.74277	0.52330	0.06961	0.74598	0.82399	0.89728	0.82399	0.89728	0.96634
3	K08DVEPC	0.95288	0.91916	0.84262	0.83282	0.57781	0.14623	0.81125	0.85921	0.91916	0.85921	0.91916	0.95288
4	K10DVEPC	0.82730	0.80840	0.78092	0.77415	0.51767	0.15930	0.73773	0.76070	0.80840	0.76070	0.80840	0.82730
5	K12DVEPC	0.81619	0.85591	0.91144	0.91515	0.75614	0.43406	0.88659	0.84935	0.85591	0.84935	0.85591	0.81619
6	K14DVEPC	0.89866	0.89961	0.88192	0.87645	0.66206	0.29125	0.85409	0.86436	0.89961	0.86436	0.89961	0.89866
7	K16DVEPC	0.90247	0.86371	0.81801	0.80999	0.55816	0.16682	0.78228	0.80943	0.86371	0.80943	0.86371	0.90247
8	K20DVEPC	0.82020	0.87289	0.94468	0.94736	0.80422	0.48225	0.91754	0.87803	0.87289	0.87803	0.87289	0.82020
9	K24DVEPC	0.72641	0.86336	0.94032	0.94172	0.91122	0.67914	0.95305	0.91141	0.86336	0.91141	0.86336	0.72641
10	K28DVEPC	0.25021	0.50707	0.65109	0.66077	0.89610	0.96112	0.71833	0.63235	0.50707	0.63235	0.50707	0.25021
11	K32DVEPC	0.27191	0.43385	0.51681	0.52208	0.76729	0.78096	0.59591	0.52768	0.43385	0.52768	0.43385	0.27191
12	K36DVEPC	0.25207	0.44747	0.55368	0.56095	0.81248	0.84484	0.63036	0.55360	0.44747	0.55360	0.44747	0.25207
13	K40DVEPC	0.43474	0.56876	0.62344	0.62586	0.81318	0.74392	0.69488	0.64237	0.56876	0.64237	0.56876	0.43474
14	K44DVEPC	0.25548	0.47802	0.60019	0.60868	0.85490	0.89720	0.67300	0.59164	0.47802	0.59164	0.47802	0.25548
15	K50DVEPC	0.27436	0.50358	0.62788	0.63642	0.87352	0.91165	0.69833	0.61736	0.50358	0.61736	0.50358	0.27436
16	K60DVEPC	0.31972	0.54791	0.67025	0.67835	0.89658	0.91404	0.73685	0.65823	0.54791	0.65823	0.54791	0.31972
17	K0TDVEPC	0.31972	0.54791	0.67025	0.67835	0.89658	0.91404	0.73685	0.65823	0.54791	0.65823	0.54791	0.31972

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.22615	0.20976	0.14621	0.14787	0.13685	0.08899	0.14674	0.20752	0.20976	0.20748	0.20976	0.22615
2	0.40881	0.35553	0.22427	0.22509	0.12555	0.01540	0.19944	0.31646	0.35553	0.31641	0.35553	0.40881
3	0.55050	0.49737	0.34102	0.34466	0.18931	0.04419	0.29619	0.45065	0.49737	0.45057	0.49737	0.55050
4	0.54705	0.50067	0.36174	0.36670	0.19413	0.05510	0.30829	0.45666	0.50067	0.45658	0.50067	0.54705
5	0.62998	0.61876	0.49282	0.50599	0.33098	0.17524	0.43246	0.59516	0.61876	0.59505	0.61876	0.62998
6	0.78746	0.73832	0.54136	0.55015	0.32900	0.13348	0.47296	0.68761	0.73832	0.68749	0.73832	0.78746
7	0.79149	0.70949	0.50257	0.50888	0.27761	0.07653	0.43358	0.64448	0.70949	0.64436	0.70949	0.79149
8	0.81005	0.82768	0.66996	0.68703	0.46172	0.25537	0.58703	0.80698	0.82768	0.80683	0.82768	0.81005
9	0.65955	0.84366	0.71935	0.73668	0.56432	0.38792	0.65773	0.90358	0.84366	0.90342	0.84366	0.65955
10	0.17823	0.40257	0.58733	0.60952	0.65439	0.63389	0.58457	0.52546	0.40257	0.52559	0.40257	0.17823
11	0.03890	0.11314	0.36134	0.34969	0.72657	0.75853	0.49251	0.16580	0.11314	0.16595	0.11314	0.03890
12	-0.15733	-0.20485	0.08954	0.06744	0.41586	0.53007	0.21536	-0.21164	-0.20485	-0.21141	-0.20485	-0.15733
13	-0.29823	-0.29334	0.07380	0.04750	0.38769	0.44268	0.21023	-0.28167	-0.29334	-0.28139	-0.29334	-0.29823
14	-0.21714	-0.31995	0.00211	-0.02529	0.32809	0.45695	0.13388	-0.34749	-0.31995	-0.34722	-0.31995	-0.21714
15	-0.28794	-0.43117	-0.08555	-0.11741	0.23639	0.36916	0.05086	-0.47442	-0.43117	-0.47412	-0.43117	-0.28794
16	-0.33579	-0.46952	-0.09169	-0.12552	0.24223	0.36976	0.05330	-0.50629	-0.46952	-0.50597	-0.46952	-0.33579
17	-0.33579	-0.46952	-0.09169	-0.12552	0.24223	0.36976	0.05330	-0.50629	-0.46952	-0.50597	-0.46952	-0.33579

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR INNEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K04NVEPC	0.30558	0.27894	0.32979	0.32196	0.30988	0.01766	0.34207	0.24925	0.27894	0.24925	0.27894	0.30558
2	K06NVEPC	0.34871	0.40206	0.42055	0.41434	0.36948	-0.02935	0.42051	0.40055	0.40206	0.40055	0.40206	0.34871
3	K08NVEPC	0.56008	0.56502	0.60677	0.60132	0.57751	0.22893	0.61109	0.54540	0.56502	0.54540	0.56502	0.56008
4	K10NVEPC	0.66113	0.72554	0.74511	0.74254	0.69428	0.28242	0.73674	0.72830	0.72554	0.72830	0.72554	0.66113
5	K12NVEPC	0.70420	0.77204	0.78946	0.78752	0.73945	0.33293	0.77995	0.77649	0.77204	0.77649	0.77204	0.70420
6	K14NVEPC	0.76674	0.83924	0.85371	0.85260	0.80573	0.41172	0.84283	0.84618	0.83924	0.84618	0.83924	0.76674
7	K16NVEPC	0.80277	0.88916	0.89651	0.89685	0.84681	0.46342	0.88179	0.90286	0.88916	0.90286	0.88916	0.80277
8	K20NVEPC	0.82819	0.84956	0.90285	0.90518	0.86685	0.52400	0.88871	0.84240	0.84956	0.84240	0.84956	0.82819
9	K24NVEPC	0.90667	0.92929	0.97209	0.97311	0.93905	0.62675	0.95658	0.92276	0.92929	0.92276	0.92929	0.90667
10	K28NVEPC	0.95535	0.96437	0.99012	0.98819	0.98674	0.75209	0.99209	0.95025	0.96437	0.95025	0.96437	0.95535
11	K32NVEPC	0.96494	0.95824	0.98743	0.98459	0.99085	0.77891	0.99258	0.93798	0.95824	0.93798	0.95824	0.96494
12	K36NVEPC	0.97129	0.92568	0.95823	0.95280	0.98273	0.84367	0.97372	0.89042	0.92568	0.89042	0.92568	0.97129
13	K40NVEPC	0.96305	0.92415	0.95035	0.94533	0.97824	0.85816	0.96677	0.89258	0.92415	0.89258	0.92415	0.96305
14	K46NVEPC	0.80907	0.68785	0.69926	0.68711	0.77821	0.87320	0.74264	0.62585	0.68785	0.62585	0.68785	0.80907
15	K50NVEPC	0.67995	0.56390	0.52571	0.50651	0.64006	0.89070	0.59422	0.50332	0.56390	0.50332	0.56390	0.67995
16	K60NVEPC	0.46999	0.39769	0.31814	0.30241	0.43910	0.77829	0.39149	0.35846	0.39769	0.35846	0.39769	0.46999
17	KGTTVEPC	0.46999	0.39769	0.31814	0.30241	0.43910	0.77829	0.39149	0.35846	0.39769	0.35846	0.39769	0.46999

GARRISON TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR INNEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NVADJ	FB_NVADJ	MA_NVADJ	AP_NVADJ	MY_NVADJ	JN_NVADJ	JL_NVADJ	AU_NVADJ	SP_NVADJ	OC_NVADJ	NO_NVADJ	DE_NVADJ
1	0.23083	0.17451	0.14255	-0.14330	0.11385	0.00510	0.13333	0.15223	0.17451	0.15227	0.17451	0.23083
2	0.34684	0.33478	0.26194	0.26545	0.18067	-0.01129	0.21804	0.32560	0.33478	0.32567	0.33478	0.34684
3	0.46230	0.54964	0.40782	0.41615	0.32981	0.10286	0.37036	0.51796	0.54964	0.51807	0.54964	0.46230
4	0.49585	0.69996	0.53296	0.54689	0.42210	0.13504	0.47519	0.72053	0.69996	0.72069	0.69996	0.49585
5	0.40901	0.63665	0.64111	0.65852	0.51040	0.18074	0.57114	0.66199	0.63665	0.66213	0.63665	0.40901
6	0.40403	0.65462	0.71961	0.74000	0.57727	0.23199	0.64062	0.68454	0.65462	0.68469	0.65462	0.40403
7	0.36505	0.64039	0.79272	0.81656	0.63644	0.27393	0.70308	0.67769	0.64039	0.67785	0.64039	0.36505
8	0.33734	0.57851	0.82282	0.84943	0.67149	0.31924	0.73034	0.60001	0.57851	0.60014	0.57851	0.33734
9	0.18856	0.47957	0.94737	0.91874	0.81847	0.42963	0.88451	0.50851	0.47957	0.50862	0.47957	0.18856
10	0.12148	0.43291	0.91915	0.88592	0.89883	0.53880	0.95871	0.46157	0.43291	0.46167	0.43291	0.12148
11	0.11750	0.42588	0.91360	0.87956	0.90517	0.55962	0.96195	0.45152	0.42588	0.45162	0.42588	0.11750
12	-0.08059	0.25445	0.77432	0.73623	0.96985	0.67223	0.90090	0.28123	0.25445	0.28129	0.25445	-0.08059
13	-0.18680	0.16908	0.70760	0.66863	0.91261	0.72020	0.83911	0.20181	0.16908	0.20185	0.16908	-0.18680
14	-0.41151	-0.05341	0.39474	0.35861	0.60691	0.83793	0.52400	-0.01772	-0.05341	-0.01773	-0.05341	-0.41151
15	-0.34583	-0.04378	0.29564	0.26435	0.49917	0.85472	0.41928	-0.01425	-0.04378	-0.01426	-0.04378	-0.34583
16	-0.23904	-0.03088	0.17959	0.15783	0.34244	0.74685	0.27623	-0.01015	-0.03088	-0.01015	-0.03088	-0.23904
17	-0.24158	-0.03265	0.17861	0.15687	0.34129	0.74846	0.27514	-0.01171	-0.03265	-0.01171	-0.03265	-0.24158

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K04TVEPC	0.51889	0.59971	0.92816	0.94823	0.92523	0.90338	0.88195	0.62978	0.59971	0.62978	0.59971	0.51889
2	K06TVEPC	0.95622	0.91153	0.82184	0.82534	0.66636	0.75461	0.75916	0.89928	0.91153	0.89928	0.91153	0.95622
3	K08TVEPC	0.98808	0.94754	0.69004	0.69603	0.50640	0.66592	0.61395	0.92936	0.94754	0.92936	0.94754	0.98808
4	K10TVEPC	0.98278	0.97237	0.66096	0.67375	0.47912	0.69154	0.57163	0.95818	0.97237	0.95818	0.97237	0.98278
5	K12TVEPC	0.98188	0.97012	0.59522	0.60887	0.40564	0.65233	0.50072	0.95308	0.97012	0.95308	0.97012	0.98188
6	K14TVEPC	0.97160	0.95886	0.56206	0.57749	0.37348	0.65269	0.46296	0.94111	0.95886	0.94111	0.95886	0.97160
7	K16TVEPC	0.96274	0.94131	0.50750	0.52222	0.31414	0.61868	0.40760	0.92013	0.94131	0.92013	0.94131	0.96274
8	K20TVEPC	0.97340	0.89717	0.57795	0.58034	0.41102	0.66088	0.50740	0.87011	0.89717	0.87011	0.89717	0.97340
9	K24TVEPC	0.98351	0.90496	0.59452	0.59667	0.41835	0.65105	0.52240	0.87783	0.90496	0.87783	0.90496	0.98351
10	K28TVEPC	0.50045	0.56631	0.91965	0.93800	0.92651	0.90659	0.87783	0.59483	0.56631	0.59483	0.56631	0.50045
11	K32TVEPC	0.73127	0.71479	0.97865	0.98350	0.92480	0.89986	0.94288	0.72324	0.71479	0.72324	0.71479	0.73127
12	K36TVEPC	0.78417	0.75725	0.97023	0.97396	0.89814	0.89375	0.93119	0.76111	0.75725	0.76111	0.75725	0.78417
13	K40TVEPC	0.81289	0.79525	0.95727	0.96325	0.87495	0.89486	0.91066	0.79867	0.79525	0.79867	0.79525	0.81289
14	K46TVEPC	0.85341	0.84036	0.93336	0.94137	0.83508	0.88851	0.87802	0.84217	0.84036	0.84217	0.84036	0.85341
15	K50TVEPC	0.85908	0.86062	0.92031	0.93128	0.81776	0.89016	0.85830	0.86400	0.86062	0.86400	0.86062	0.85908
16	K60TVEPC	0.87695	0.86531	0.91420	0.92290	0.80380	0.87068	0.85415	0.86557	0.86531	0.86557	0.86531	0.87695
17	KGTTVEPC	0.87695	0.86531	0.91420	0.92290	0.80380	0.87068	0.85415	0.86557	0.86531	0.86557	0.86531	0.87695

GARRISON TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.34899	0.36756	0.23052	0.25572	0.16277	0.15038	0.17103	0.37634	0.36756	0.37634	0.36756	0.34899
2	0.90160	0.87812	0.52082	0.34984	0.18426	0.19744	0.23139	0.84464	0.87812	0.84464	0.87812	0.90160
3	0.58823	0.68217	0.35793	0.39202	0.18607	0.23152	0.24866	0.69884	0.68217	0.69884	0.68217	0.58823
4	0.12018	0.28087	0.45831	0.50727	0.23532	0.32140	0.30948	0.31780	0.28087	0.31780	0.28087	0.12018
5	-0.10111	0.08108	0.46224	0.51341	0.22314	0.33954	0.30362	0.12535	0.08108	0.12535	0.08108	-0.10111
6	-0.27202	-0.07452	0.47322	0.52794	0.22274	0.36832	0.30434	-0.02422	-0.07452	-0.02422	-0.07452	-0.27202
7	-0.32840	-0.12560	0.43874	0.49021	0.19237	0.35850	0.27514	-0.07366	-0.12560	-0.07366	-0.12560	-0.32840
8	-0.50432	-0.26442	0.53743	0.57472	0.27073	0.41190	0.36840	-0.20649	-0.26442	-0.20649	-0.26442	-0.50432
9	-0.56969	-0.31714	0.56626	0.57627	0.28225	0.41562	0.38850	-0.25601	-0.31714	-0.25601	-0.31714	-0.56969
10	-0.40584	-0.31803	0.88468	0.81879	0.68124	0.63075	0.71146	-0.29593	-0.31803	-0.29593	-0.31803	-0.40584
11	-1.64845	-1.34155	0.41984	0.28934	0.82049	0.85219	0.72920	-1.28726	-1.34155	-1.28726	-1.34155	-1.64845
12	-1.76896	-1.42235	0.41565	0.28590	0.79646	0.84605	0.71973	-1.35574	-1.42235	-1.35574	-1.42235	-1.76896
13	-1.84552	-1.50422	0.40498	0.27717	0.77258	0.84390	0.70005	-1.43292	-1.50422	-1.43292	-1.50422	-1.84552
14	-1.95262	-1.60309	0.38876	0.26419	0.73351	0.83402	0.67048	-1.52421	-1.60309	-1.52421	-1.60309	-1.95262
15	-1.98356	-1.65815	0.37622	0.25355	0.71382	0.83096	0.65024	-1.57978	-1.65815	-1.57978	-1.65815	-1.98356
16	-2.02482	-1.66717	0.37372	0.25127	0.70163	0.81277	0.64710	-1.58264	-1.66717	-1.58264	-1.66717	-2.02482
17	-2.32536	-1.93742	0.25802	0.12444	0.62958	0.73891	0.56270	-1.84621	-1.93742	-1.84621	-1.93742	-2.32536

GARRISON UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_UVEPC	FB_UVEPC	MA_UVEPC	AP_UVEPC	MY_UVEPC	JN_UVEPC	JL_UVEPC	AU_UVEPC	SP_UVEPC	OC_UVEPC	NO_UVEPC	DE_UVEPC
1	K04UVEPC	0.46294	0.43126	0.42286	0.42852	0.30387	-0.06753	0.40190	0.40174	0.43126	0.40174	0.43126	0.46294
2	K06UVEPC	0.61593	0.57763	0.62651	0.63589	0.54413	0.16917	0.61217	0.55867	0.57763	0.55867	0.57763	0.61593
3	K08UVEPC	0.67254	0.61062	0.68655	0.69754	0.63756	0.33379	0.67652	0.59962	0.61062	0.59962	0.61062	0.67254
4	K10UVEPC	0.73494	0.64893	0.69611	0.70766	0.64585	0.39292	0.68326	0.63976	0.64893	0.63976	0.64893	0.73494
5	K12UVEPC	0.73374	0.63060	0.67053	0.68206	0.63514	0.44624	0.65899	0.62270	0.63060	0.62270	0.63060	0.73374
6	K14UVEPC	0.77318	0.65507	0.66491	0.67661	0.62561	0.47019	0.65102	0.64652	0.65507	0.64652	0.65507	0.77318
7	K16UVEPC	0.91930	0.92630	0.82656	0.84176	0.73519	0.56861	0.79701	0.91954	0.92630	0.91954	0.92630	0.91930
8	K20UVEPC	0.58140	0.53764	0.70283	0.71383	0.69055	0.34640	0.70378	0.52200	0.53764	0.52200	0.53764	0.58140
9	K24UVEPC	0.65588	0.59277	0.75011	0.76212	0.73661	0.40307	0.74946	0.57624	0.59277	0.57624	0.59277	0.65588
10	K28UVEPC	0.92093	0.83501	0.82099	0.83470	0.72383	0.40583	0.79683	0.81426	0.83501	0.81426	0.83501	0.92093
11	K32UVEPC	0.94050	0.87702	0.81623	0.82998	0.69057	0.36372	0.78488	0.85474	0.87702	0.85474	0.87702	0.94050
12	K36UVEPC	0.86986	0.86880	0.87659	0.89147	0.77313	0.41404	0.85103	0.85000	0.86880	0.85000	0.86880	0.86986
13	K40UVEPC	0.79043	0.80469	0.92631	0.93514	0.85209	0.47924	0.90813	0.78446	0.80469	0.78446	0.80469	0.79043
14	K44UVEPC	0.70842	0.71008	0.85232	0.85998	0.79665	0.40829	0.85210	0.68479	0.71008	0.68479	0.71008	0.70842
15	K50UVEPC	0.64953	0.66463	0.86435	0.87228	0.86190	0.46214	0.87205	0.63949	0.66463	0.63949	0.66463	0.64953
16	K60UVEPC	0.58223	0.61836	0.87630	0.88432	0.90132	0.56765	0.89456	0.59692	0.61836	0.59692	0.61836	0.58223
17	KGTUVEPC	0.58223	0.61836	0.87630	0.88432	0.90132	0.56765	0.89456	0.59692	0.61836	0.59692	0.61836	0.58223

GARRISON TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_UVADJ	FB_UVADJ	MA_UVADJ	AP_UVADJ	MY_UVADJ	JN_UVADJ	JL_UVADJ	AU_UVADJ	SP_UVADJ	OC_UVADJ	NO_UVADJ	DE_UVADJ
1	0.17671	0.21971	0.39416	0.38520	0.28476	-0.05605	0.38919	0.20467	0.21971	0.20467	0.21971	0.17671
2	0.23511	0.29429	0.58399	0.57161	0.50992	0.14041	0.59281	0.28463	0.29429	0.28463	0.29429	0.23511
3	0.25672	0.31110	0.63995	0.62702	0.59747	0.27705	0.65512	0.30549	0.31110	0.30549	0.31110	0.25672
4	0.26038	0.31422	0.63627	0.62292	0.61551	0.33166	0.67287	0.30978	0.31422	0.30978	0.31422	0.26038
5	0.25995	0.30534	0.61288	0.60038	0.60529	0.37666	0.64896	0.30152	0.30534	0.30152	0.30534	0.25995
6	0.18821	0.25031	0.55911	0.54455	0.61485	0.42361	0.61774	0.24704	0.25031	0.24704	0.25031	0.18821
7	0.02311	0.16771	0.57597	0.55244	0.62961	0.56128	0.65216	0.16648	0.16771	0.16648	0.16771	0.02311
8	-0.03854	0.05207	0.44735	0.42408	0.55481	0.32569	0.53737	0.05055	0.05207	0.05055	0.05207	-0.03854
9	-0.08845	0.01997	0.44350	0.41721	0.56257	0.36479	0.54150	0.01941	0.01997	0.01941	0.01997	-0.08845
10	-0.22944	-0.05977	0.42349	0.39203	0.50491	0.34350	0.52123	-0.05828	-0.05977	-0.05828	-0.05977	-0.22944
11	-0.75240	-0.50775	0.12434	0.07874	0.26142	0.20510	0.25469	-0.49485	-0.50775	-0.49485	-0.50775	-0.75240
12	-1.03787	-0.81758	-0.09387	-0.15389	0.11666	0.14999	0.07595	-0.79989	-0.81758	-0.79989	-0.81758	-1.03787
13	-0.97923	-0.79113	-0.12714	-0.19052	0.10602	0.16237	0.05620	-0.77125	-0.79113	-0.77125	-0.79113	-0.97923
14	-0.91083	-0.72877	-0.14334	-0.20262	0.07750	0.12852	0.02885	-0.70281	-0.72877	-0.70281	-0.72877	-0.91083
15	-1.17880	-1.00604	-0.44717	-0.51957	-0.17607	0.02005	-0.24660	-0.96798	-1.00604	-0.96798	-1.00604	-1.17880
16	-1.05667	-0.93600	-0.45335	-0.52674	-0.18850	0.02462	-0.25297	-0.90354	-0.93600	-0.90354	-0.93600	-1.05667
17	-1.05667	-0.93600	-0.45335	-0.52674	-0.18850	0.02462	-0.25297	-0.90354	-0.93600	-0.90354	-0.93600	-1.05667

APPENDIX D: TOPWIDTHS AND CORRELATION COEFFICIENTS OF FORT PECK TAILWATER, EXCLUDING YELLOWSTONE RIVER REACH

Tables of coefficients are presented in two major groups. The first group contains the correlation coefficients for depth and the second contains the correlations for velocity. Within each group, the tables occur in three major subsets--one subset for each of the types of water year (median flow, high flow, and low flow). Within each subset, the coefficients are separated by channel category and then by topwidth adjustment. Within each pair of tables, the first table contains coefficients not adjusted for topwidth and the second member of the pair contains coefficients adjusted for topwidth.

FORT PECK CHANNEL TOPWIDTHS BY DISCHARGE

OBS	Q	YELLOWSTONE	IMMEDIATE	MIDDLE	NEAR
1	4000	.	755	475	605
2	6000	.	831	659	622
3	8000	.	907	566	574
4	10000	.	983	794	692
5	12000	.	998	844	757
6	14000	.	1009	914	890
7	16000	.	1032	1005	904
8	24000	.	1088	1139	1283
9	32000	.	1101	1220	1413

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.88229	0.85921	0.79288	0.75576	0.55618	-0.17439	0.75576	0.87098	0.87098	0.87098	0.85921	0.82968
2	K06NDEPC	0.88393	0.90319	0.83624	0.83781	0.72273	-0.04922	0.83781	0.92004	0.92004	0.92004	0.90319	0.86343
3	K08NDEPC	0.84232	0.87874	0.82044	0.83954	0.77300	0.03780	0.83954	0.89532	0.89532	0.89532	0.87874	0.83975
4	K10NDEPC	0.79373	0.84861	0.82288	0.86502	0.88129	0.25393	0.86502	0.85857	0.85857	0.85857	0.84861	0.82343
5	K12NDEPC	0.64882	0.72035	0.71949	0.78381	0.88610	0.44361	0.78381	0.72617	0.72617	0.72617	0.72035	0.70451
6	K14NDEPC	0.50508	0.58463	0.60658	0.68491	0.85476	0.59192	0.68491	0.58599	0.58599	0.58599	0.58463	0.57891
7	K16NDEPC	0.38860	0.46938	0.51024	0.59542	0.81308	0.68079	0.59542	0.46656	0.46656	0.46656	0.46938	0.47317
8	K24NDEPC	0.03767	0.10533	0.18004	0.26492	0.55850	0.65854	0.26492	0.09440	0.09440	0.09440	0.10533	0.12889
9	K32NDEPC	-0.06184	-0.01961	0.04739	0.10703	0.33147	0.85286	0.10703	-0.03163	-0.03163	-0.03163	-0.01961	0.00597

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.47112	0.61047	0.78150	0.69332	0.45104	-0.13367	0.69332	0.53315	0.53315	0.53315	0.61026	0.72233
2	0.34156	0.52448	0.76528	0.82967	0.64510	-0.04153	0.82967	0.43465	0.43465	0.43465	0.52416	0.65354
3	0.20117	0.39622	0.66942	0.75385	0.75307	0.03481	0.75385	0.29789	0.29789	0.29789	0.39581	0.54015
4	0.07244	0.27248	0.58977	0.69685	0.83206	0.25341	0.69685	0.16572	0.16572	0.16572	0.27199	0.43604
5	0.04031	0.21285	0.50158	0.61714	0.82233	0.43776	0.61714	0.12014	0.12014	0.12014	0.21241	0.35726
6	0.02060	0.16176	0.41615	0.53011	0.78315	0.57750	0.53011	0.08510	0.08510	0.08510	0.16140	0.28604
7	-0.00151	0.11143	0.33305	0.44422	0.72488	0.64831	0.44422	0.04803	0.04803	0.04803	0.11113	0.21588
8	-0.00424	0.01493	0.10435	0.17961	0.46432	0.58968	0.17961	0.00000	0.00000	0.00000	0.01485	0.04801
9	0.00853	-0.00234	0.02666	0.07088	0.27095	0.75242	0.07088	0.00076	0.00076	0.00076	-0.00233	0.00211

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.65770	0.76141	0.91874	0.84983	0.98859	0.47397	0.84983	0.67577	0.67577	0.67577	0.76141	0.90239
2	K06TDEPC	0.56478	0.68202	0.87267	0.78854	0.99882	0.37079	0.78854	0.58589	0.58589	0.58589	0.68202	0.85013
3	K08TDEPC	0.96591	0.99246	0.96490	0.98666	0.73713	0.88979	0.98666	0.97318	0.97318	0.97318	0.99246	0.97814
4	K10TDEPC	0.50505	0.62841	0.83672	0.74365	0.99738	0.30375	0.74365	0.52693	0.52693	0.52693	0.62841	0.81105
5	K12TDEPC	0.76622	0.84757	0.95495	0.90759	0.94980	0.59733	0.90759	0.77839	0.77838	0.77838	0.84757	0.94794
6	K14TDEPC	0.95966	0.97836	0.94601	0.96347	0.73476	0.86341	0.96347	0.95995	0.95995	0.95995	0.97836	0.96212
7	K16TDEPC	0.98992	0.99435	0.92003	0.96376	0.62924	0.94503	0.96376	0.99333	0.99333	0.99333	0.99435	0.94044
8	K24TDEPC	0.97812	0.96501	0.84603	0.91676	0.48044	0.99062	0.91676	0.98358	0.98358	0.98358	0.96501	0.87081
9	K32TDEPC	0.91777	0.88702	0.72749	0.82279	0.30159	0.98907	0.82279	0.92503	0.92503	0.92503	0.88702	0.75558

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.54212	0.73358	0.73966	0.62415	0.44722	0.19840	0.62415	0.60331	0.60331	0.60331	0.46502	0.82948
2	0.20830	0.38324	0.77062	0.77360	0.62688	0.21533	0.77360	0.27178	0.27178	0.27178	0.57789	0.61611
3	0.57859	0.75910	0.92565	0.86347	0.39735	0.44382	0.86347	0.66240	0.66240	0.66240	0.72226	0.88492
4	0.01750	0.16799	0.54741	0.57434	0.75421	0.21254	0.57434	0.07861	0.07861	0.07861	0.61528	0.37590
5	-0.06828	0.13409	0.54383	0.63078	0.76346	0.44428	0.63078	0.02540	0.02540	0.02540	0.77537	0.34762
6	-0.25179	0.00534	0.42650	0.56534	0.63959	0.69545	0.56534	-0.12531	-0.12531	-0.12531	0.80697	0.22249
7	-0.48271	-0.19203	0.27289	0.42991	0.60228	0.83697	0.42991	-0.34037	-0.34037	-0.34037	0.70381	0.05187
8	-0.80138	-0.46855	0.05879	0.21900	0.43972	0.98691	0.21900	-0.64426	-0.64426	-0.64426	0.51678	-0.17779
9	-0.93594	-0.58748	-0.04932	0.09351	0.25276	0.91476	0.09351	-0.78056	-0.78056	-0.78056	0.38264	-0.27270

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.90213	0.89340	0.84390	0.90524	0.84560	0.90430	0.90524	0.90745	0.90745	0.90745	0.89340	0.83293
2	K06NDEPC	0.86028	0.87021	0.88653	0.82384	0.81800	0.78350	0.82384	0.84994	0.84994	0.84994	0.87021	0.88978
3	K08NDEPC	0.55883	0.58198	0.64785	0.48548	0.51853	0.41959	0.48548	0.53774	0.53774	0.53774	0.58198	0.66609
4	K10NDEPC	0.70219	0.69646	0.64113	0.63961	0.55936	0.63873	0.63961	0.70768	0.70768	0.70768	0.69646	0.64966
5	K12NDEPC	0.66881	0.65204	0.55558	0.60918	0.49651	0.63199	0.60918	0.68258	0.68258	0.68258	0.65204	0.56235
6	K14NDEPC	0.70545	0.67506	0.53240	0.67534	0.52894	0.72649	0.67534	0.72969	0.72969	0.72969	0.67506	0.52902
7	K16NDEPC	0.70031	0.66880	0.52627	0.64627	0.50801	0.69134	0.64627	0.71996	0.71996	0.71996	0.66880	0.53144
8	K24NDEPC	0.66802	0.63189	0.46734	0.67435	0.51259	0.74319	0.67435	0.70032	0.70032	0.70032	0.63189	0.45393
9	K32NDEPC	0.89666	0.87713	0.76750	0.87131	0.76542	0.90009	0.87131	0.91279	0.91279	0.91279	0.87713	0.76604

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.86633	0.78791	0.63900	0.57094	0.36956	0.31691	0.57094	0.81941	0.81941	0.81941	0.78791	0.70186
2	0.84935	0.78902	0.69014	0.53420	0.36754	0.28229	0.53420	0.78905	0.78905	0.78905	0.78902	0.77081
3	0.50916	0.48696	0.46542	0.29051	0.21501	0.13951	0.29051	0.46069	0.46069	0.46069	0.48696	0.53250
4	0.63308	0.69037	0.55527	0.46141	0.27962	0.25603	0.46141	0.68444	0.68444	0.68444	0.69037	0.62613
5	0.53398	0.58455	0.52637	0.48074	0.27151	0.27712	0.48074	0.59395	0.59395	0.59395	0.58455	0.53181
6	0.41431	0.47432	0.47176	0.62658	0.34007	0.37453	0.62658	0.49009	0.49009	0.49009	0.47432	0.40229
7	0.39573	0.45627	0.45711	0.60905	0.33174	0.36201	0.60905	0.46851	0.46851	0.46851	0.45627	0.39377
8	-0.02439	0.08198	0.18424	0.44675	0.47507	0.55232	0.44675	0.05958	0.05958	0.05958	0.08198	0.09673
9	-0.21776	-0.05242	0.17771	0.45916	0.74957	0.73670	0.45916	-0.09945	-0.09945	-0.09945	-0.05242	0.02454

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHSFOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.84541	0.80289	0.66012	0.61996	-0.17439	0.04351	0.55618	0.80289	0.84541	0.81218	0.82968	0.70226
2	K06NDEPC	0.88432	0.83877	0.82319	0.79088	-0.04922	0.20544	0.72273	0.83877	0.88432	0.84052	0.86343	0.83717
3	K08NDEPC	0.86025	0.81918	0.86172	0.83626	0.03780	0.28532	0.77300	0.81918	0.86025	0.81720	0.83975	0.86221
4	K10NDEPC	0.83697	0.81560	0.93177	0.92226	0.25393	0.47777	0.88129	0.81560	0.83697	0.80781	0.82343	0.91488
5	K12NDEPC	0.71324	0.70683	0.89840	0.90491	0.44361	0.60673	0.88610	0.70683	0.71324	0.69391	0.70451	0.86252
6	K14NDEPC	0.58239	0.59021	0.83033	0.85085	0.59192	0.70537	0.85476	0.59021	0.58239	0.57582	0.57891	0.78146
7	K16NDEPC	0.47171	0.49169	0.75608	0.78780	0.68079	0.78868	0.81308	0.49169	0.47171	0.47336	0.47317	0.70003
8	K24NDEPC	0.11694	0.16005	0.43011	0.48310	0.65854	0.89349	0.55850	0.16005	0.11694	0.14081	0.12889	0.36818
9	K32NDEPC	-0.00698	0.03281	0.22588	0.26932	0.85286	0.55212	0.33147	0.03281	-0.00698	0.01892	0.00597	0.17975

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.67282	0.78440	0.60338	0.54206	-0.13367	0.03011	0.45544	0.78440	0.67282	0.76071	0.72233	0.64268
2	0.59660	0.73307	0.81821	0.76112	-0.04153	0.15648	0.65140	0.73307	0.59660	0.69728	0.65354	0.83108
3	0.47609	0.63159	0.77722	0.79413	0.03481	0.23720	0.76042	0.63159	0.47609	0.59045	0.54015	0.77651
4	0.36175	0.54484	0.75467	0.79463	0.25341	0.43048	0.82298	0.54484	0.36175	0.49720	0.43604	0.73967
5	0.29121	0.45781	0.71133	0.76396	0.43776	0.55501	0.81306	0.45781	0.29121	0.41244	0.35726	0.68165
6	0.22757	0.37348	0.64637	0.70748	0.57750	0.65235	0.77411	0.37348	0.22757	0.33217	0.28404	0.60717
7	0.16702	0.29582	0.56752	0.63407	0.64831	0.74603	0.71608	0.29582	0.16702	0.25868	0.21588	0.52439
8	0.03096	0.08415	0.29368	0.35750	0.58968	0.89104	0.45795	0.08415	0.03096	0.06584	0.04801	0.25081
9	-0.00170	0.01667	0.15068	0.19524	0.75242	0.54706	0.26712	0.01667	-0.00170	0.00850	0.00211	0.11962

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.83913	0.93529	0.73725	0.96765	0.47397	0.33539	0.98859	0.93529	0.83913	0.94744	0.90239	0.78016
2	K06TDEPC	0.77235	0.89411	0.66033	0.93718	0.37079	0.24295	0.99882	0.89411	0.77235	0.91079	0.85013	0.70831
3	K08TDEPC	0.99520	0.95374	0.97872	0.92500	0.88979	0.76872	0.73713	0.95374	0.99520	0.94140	0.97814	0.98604
4	K10TDEPC	0.72544	0.86104	0.60623	0.91062	0.30375	0.17844	0.99738	0.86104	0.72544	0.88034	0.81105	0.65720
5	K12TDEPC	0.90616	0.96468	0.81765	0.98237	0.59733	0.44051	0.94980	0.96468	0.90616	0.97050	0.94794	0.85310
6	K14TDEPC	0.98045	0.93601	0.94841	0.91080	0.86341	0.70525	0.73476	0.93601	0.98045	0.92426	0.96212	0.95833
7	K16TDEPC	0.97745	0.90238	0.98282	0.85968	0.94503	0.83167	0.62924	0.90238	0.97745	0.88447	0.94044	0.98068
8	K24TDEPC	0.92733	0.82065	0.97237	0.76021	0.99062	0.92707	0.48044	0.82065	0.92733	0.79678	0.87081	0.95703
9	K32TDEPC	0.82957	0.69529	0.91368	0.61897	0.98907	0.98123	0.30159	0.69529	0.82957	0.66647	0.75558	0.88532

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.81761	0.78215	0.51123	0.57258	0.19840	0.13829	0.45065	0.78215	0.81761	0.82424	0.82948	0.55125
2	0.50064	0.75087	0.63526	0.76936	0.21533	0.13898	0.63169	0.75087	0.50064	0.72229	0.61611	0.69435
3	0.83495	0.95039	0.80869	0.65220	0.44382	0.37769	0.40040	0.95039	0.83495	0.90692	0.88492	0.83020
4	0.26934	0.51845	0.50976	0.90070	0.21254	0.12299	0.76000	0.51845	0.26934	0.48048	0.37590	0.53818
5	0.24350	0.49592	0.62786	0.93189	0.44428	0.32273	0.76932	0.49592	0.24350	0.44081	0.34762	0.63515
6	0.12268	0.36584	0.63135	0.78458	0.69545	0.55955	0.64450	0.36584	0.12268	0.30131	0.22249	0.61370
7	-0.06015	0.20812	0.52369	0.64308	0.83697	0.72554	0.60690	0.20812	-0.06015	0.14093	0.05187	0.49527
8	-0.31196	-0.00433	0.32791	0.44178	0.98691	0.91661	0.43572	-0.00433	-0.31196	-0.06859	-0.17779	0.29256
9	-0.41691	-0.10283	0.20008	0.29724	0.91476	0.92331	0.25007	-0.10283	-0.41691	-0.15624	-0.27270	0.16396

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.86925	0.81726	0.88107	0.88796	0.90430	0.84339	0.84560	0.81726	0.86925	0.78328	0.83293	0.89691
2	K06NDEPC	0.88443	0.88855	0.66723	0.76617	0.78350	0.83110	0.81800	0.88855	0.88443	0.88391	0.88978	0.71770
3	K08NDEPC	0.62564	0.67617	0.24747	0.39706	0.41959	0.54410	0.51853	0.67617	0.62564	0.70074	0.66609	0.31604
4	K10NDEPC	0.67772	0.62663	0.55960	0.57150	0.63873	0.58933	0.55936	0.62663	0.67772	0.61177	0.64966	0.58515
5	K12NDEPC	0.61238	0.52784	0.59247	0.55384	0.63199	0.52630	0.49651	0.52784	0.61238	0.50230	0.56235	0.60010
6	K14NDEPC	0.60842	0.48416	0.75440	0.65236	0.72649	0.54710	0.52894	0.48416	0.60842	0.43800	0.52902	0.73714
7	K16NDEPC	0.60624	0.48322	0.70159	0.61470	0.69134	0.53023	0.50801	0.48322	0.60624	0.44546	0.53144	0.69029
8	K24NDEPC	0.54984	0.40621	0.82877	0.68186	0.74319	0.51667	0.51259	0.40621	0.54984	0.34581	0.45393	0.79185
9	K32NDEPC	0.82876	0.72765	0.89248	0.84834	0.90009	0.77941	0.76542	0.72765	0.82876	0.68895	0.76604	0.89380

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.74914	0.64506	0.42815	0.42485	0.31691	0.24567	0.37672	0.64506	0.74914	0.64562	0.70184	0.47195
2	0.78364	0.72104	0.33335	0.37688	0.28229	0.24889	0.37466	0.72104	0.78364	0.74903	0.77081	0.38827
3	0.51156	0.50635	0.11409	0.18024	0.13951	0.15037	0.21917	0.50635	0.51156	0.54799	0.53250	0.15778
4	0.66806	0.56572	0.31104	0.31276	0.25603	0.19635	0.28503	0.56572	0.66806	0.57677	0.62613	0.35219
5	0.56440	0.52129	0.36024	0.33156	0.27712	0.19182	0.27677	0.52129	0.56440	0.48656	0.53181	0.39511
6	0.44548	0.40615	0.53929	0.45915	0.37453	0.23443	0.34666	0.40615	0.44548	0.34491	0.40229	0.57061
7	0.43179	0.39653	0.50943	0.43945	0.36201	0.23078	0.33817	0.39653	0.43179	0.34229	0.39377	0.54275
8	0.09477	0.13249	0.80348	0.67188	0.55232	0.31916	0.48428	0.13249	0.09477	0.08716	0.09673	0.70008
9	-0.01063	0.11392	0.77205	0.74871	0.73670	0.53024	0.73442	0.11392	-0.01063	0.05162	0.02454	0.68915

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.85944	0.88229	0.84541	0.81218	0.66012	0.60589	0.82968	0.87643	0.85944	0.87643	0.87643	0.88229
2	K06NDEPC	0.79149	0.88393	0.88432	0.84052	0.82319	0.77905	0.86343	0.83943	0.79149	0.83943	0.83943	0.88393
3	K08NDEPC	0.72825	0.84232	0.86025	0.81720	0.86172	0.82660	0.83975	0.78529	0.72825	0.78529	0.78529	0.84232
4	K10NDEPC	0.67061	0.79373	0.83697	0.80781	0.93177	0.91788	0.82343	0.73031	0.67061	0.73031	0.73031	0.79373
5	K12NDEPC	0.51595	0.64882	0.71324	0.69391	0.89840	0.90595	0.70451	0.57857	0.51595	0.57857	0.57857	0.64882
6	K14NDEPC	0.37493	0.50508	0.58239	0.57382	0.83033	0.85673	0.57891	0.43503	0.37493	0.43503	0.43503	0.50508
7	K16NDEPC	0.26895	0.38860	0.47171	0.47336	0.75608	0.79768	0.47317	0.32334	0.26895	0.32334	0.32334	0.38860
8	K24NDEPC	-0.03654	0.03767	0.11694	0.14081	0.43011	0.50100	0.12889	-0.00484	-0.03654	-0.00484	-0.00484	0.03767
9	K32NDEPC	-0.09511	-0.06184	-0.00698	0.01892	0.22588	0.28394	0.00597	-0.08197	-0.09511	-0.08197	-0.08197	-0.06184

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.29902	0.47112	0.67282	0.76071	0.60338	0.52220	0.72233	0.39133	0.29902	0.39133	0.39133	0.47112
2	0.14375	0.34156	0.59660	0.69728	0.81821	0.73903	0.65354	0.24354	0.14375	0.24354	0.24354	0.34156
3	0.01115	0.20117	0.47609	0.59045	0.77722	0.79735	0.54015	0.10503	0.01115	0.10503	0.10503	0.20117
4	-0.10125	0.07244	0.36175	0.49720	0.75467	0.80576	0.43604	-0.01653	-0.10125	-0.01653	-0.01653	0.07244
5	-0.09483	0.04031	0.29121	0.41244	0.71133	0.77977	0.35726	-0.03095	-0.09483	-0.03095	-0.03095	0.04031
6	-0.07794	0.02060	0.22757	0.33217	0.64637	0.72666	0.28404	-0.03312	-0.07794	-0.03312	-0.03312	0.02060
7	-0.06944	-0.00151	0.16702	0.25868	0.56752	0.65563	0.21588	-0.03992	-0.06944	-0.03992	-0.03992	-0.00151
8	0.01391	-0.00424	0.03096	0.06584	0.29368	0.37976	0.04801	0.00115	0.01391	0.00115	0.00115	-0.00424
9	0.03892	0.00853	-0.00170	0.00850	0.15068	0.21101	0.00211	0.02176	0.03892	0.02176	0.02176	0.00853

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONALDEPTHS FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_TDEPC	FB_TDEPC	MA_TDEPC	AP_TDEPC	MY_TDEPC	JN_TDEPC	JL_TDEPC	AU_TDEPC	SP_TDEPC	OC_TDEPC	NO_TDEPC	DE_TDEPC
1	K04TDEPC	0.62068	0.65770	0.83913	0.94744	0.73725	0.98966	0.90239	0.63871	0.62068	0.63871	0.63871	0.65770
2	K06TDEPC	0.52343	0.56478	0.77235	0.91079	0.66033	0.97358	0.85013	0.54330	0.52343	0.54330	0.54330	0.56478
3	K08TDEPC	0.94354	0.96591	0.99520	0.94140	0.97872	0.87079	0.97814	0.95531	0.94354	0.95531	0.95531	0.96591
4	K10TDEPC	0.46303	0.50505	0.72544	0.88034	0.60623	0.95572	0.81105	0.48313	0.46303	0.48313	0.48313	0.50505
5	K12TDEPC	0.73841	0.76622	0.90616	0.97050	0.81765	0.98497	0.94794	0.75236	0.73841	0.75236	0.75236	0.76622
6	K14TDEPC	0.95007	0.95966	0.98045	0.92426	0.94841	0.86015	0.96212	0.95596	0.95007	0.95596	0.95596	0.95966
7	K16TDEPC	0.97393	0.98992	0.97745	0.88447	0.98282	0.78905	0.94044	0.98276	0.97393	0.98276	0.98276	0.98992
8	K24TDEPC	0.95826	0.97812	0.92733	0.79678	0.97237	0.67071	0.87081	0.96870	0.95826	0.96870	0.96870	0.97812
9	K32TDEPC	0.89511	0.91777	0.82957	0.66647	0.91368	0.51425	0.75558	0.90656	0.89511	0.90656	0.90656	0.91777

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_TDADJ	FB_TDADJ	MA_TDADJ	AP_TDADJ	MY_TDADJ	JN_TDADJ	JL_TDADJ	AU_TDADJ	SP_TDADJ	OC_TDADJ	NO_TDADJ	DE_TDADJ
1	0.40852	0.54212	0.81761	0.82424	0.51123	0.55830	0.82948	0.47693	0.40852	0.47693	0.47693	0.54212
2	0.07245	0.20830	0.50064	0.72229	0.63526	0.76198	0.61611	0.14192	0.07245	0.14192	0.14192	0.20830
3	0.37848	0.57859	0.83495	0.90692	0.80869	0.58535	0.88492	0.48396	0.37848	0.48396	0.48396	0.57859
4	-0.11249	0.01750	0.26934	0.48048	0.50976	0.90123	0.37590	-0.04589	-0.11249	-0.04589	-0.04589	0.01750
5	-0.28368	-0.06828	0.24350	0.44081	0.62786	0.98263	0.34762	-0.17072	-0.28368	-0.17072	-0.17072	-0.06828
6	-0.55287	-0.25179	0.12268	0.30131	0.63135	0.78660	0.22249	-0.39348	-0.55287	-0.39348	-0.39348	-0.25179
7	-0.81711	-0.48271	-0.06015	0.14093	0.52369	0.63630	0.05187	-0.64048	-0.81711	-0.64048	-0.64048	-0.48271
8	-1.16670	-0.80138	-0.31196	-0.06859	0.32791	0.43413	-0.17779	-0.97381	-1.16670	-0.97381	-0.97381	-0.80138
9	-1.29463	-0.93594	-0.41691	-0.15624	0.20008	0.28338	-0.27270	-1.10509	-1.29463	-1.10509	-1.10509	-0.93594

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_NDEPC	FB_NDEPC	MA_NDEPC	AP_NDEPC	MY_NDEPC	JN_NDEPC	JL_NDEPC	AU_NDEPC	SP_NDEPC	OC_NDEPC	NO_NDEPC	DE_NDEPC
1	K04NDEPC	0.88724	0.90213	0.86925	0.78328	0.88107	0.87412	0.83293	0.89599	0.88724	0.89599	0.89599	0.90213
2	K06NDEPC	0.87726	0.86028	0.88443	0.88391	0.66723	0.79446	0.88978	0.86913	0.87726	0.86913	0.86913	0.86028
3	K08NDEPC	0.59947	0.55883	0.62564	0.70074	0.24747	0.45458	0.66609	0.57849	0.59947	0.57849	0.57849	0.55883
4	K10NDEPC	0.69336	0.70219	0.67772	0.61177	0.55960	0.56724	0.64966	0.69636	0.69336	0.69636	0.69636	0.70219
5	K12NDEPC	0.64577	0.66881	0.61238	0.50230	0.59247	0.52833	0.56235	0.65516	0.64577	0.65516	0.65516	0.66881
6	K14NDEPC	0.66129	0.70545	0.60842	0.43800	0.75440	0.59744	0.52902	0.68171	0.66129	0.68171	0.68171	0.70545
7	K16NDEPC	0.65674	0.70	0.60624	0.44546	0.70159	0.56708	0.53144	0.68105	0.65674	0.68105	0.68105	0.70031
8	K24NDEPC	0.60277	0.66	0.54984	0.34581	0.82877	0.60670	0.45393	0.63623	0.60277	0.63623	0.63623	0.66802
9	K32NDEPC	0.86040	0.89666	0.82876	0.68895	0.89248	0.81400	0.76604	0.87949	0.86040	0.87949	0.87949	0.89666

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_NDADJ	FB_NDADJ	MA_NDADJ	AP_NDADJ	MY_NDADJ	JN_NDADJ	JL_NDADJ	AU_NDADJ	SP_NDADJ	OC_NDADJ	NO_NDADJ	DE_NDADJ
1	0.79852	0.86633	0.74914	0.64562	0.42815	0.41608	0.70184	0.87321	0.79852	0.87321	0.87321	0.86633
2	0.76242	0.84935	0.78364	0.74903	0.33335	0.38879	0.77081	0.82199	0.76242	0.82199	0.82199	0.84935
3	0.57331	0.50916	0.51156	0.54799	0.11409	0.20530	0.53250	0.56280	0.57331	0.56280	0.56280	0.50916
4	0.51435	0.63308	0.66806	0.57677	0.31104	0.30883	0.62613	0.57597	0.51435	0.57597	0.57597	0.63308
5	0.40272	0.53398	0.56440	0.48656	0.36024	0.31467	0.53181	0.46972	0.40272	0.46972	0.46972	0.53398
6	0.25249	0.41431	0.44548	0.34491	0.53929	0.41835	0.40229	0.33508	0.25249	0.33508	0.33508	0.41431
7	0.23404	0.39573	0.43179	0.34229	0.50943	0.40334	0.39377	0.31859	0.23404	0.31859	0.31859	0.39573
8	-0.20056	-0.02439	0.09477	0.08716	0.80348	0.60098	0.09673	-0.11107	-0.20056	-0.11107	-0.11107	-0.02439
9	-0.48964	-0.21776	-0.01063	0.05162	0.77205	0.72306	0.02454	-0.34732	-0.48964	-0.34732	-0.34732	-0.21776

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K04NVEPC	0.74861	0.71060	0.84550	0.94421	0.83341	0.59749	0.94421	0.71043	0.71043	0.71043	0.71060	0.69903
2	K06NVEPC	0.80539	0.77601	0.89193	0.96547	0.87869	0.66478	0.96547	0.77554	0.77554	0.77554	0.77601	0.76590
3	K08NVEPC	0.90158	0.87820	0.92524	0.95029	0.96236	0.85180	0.95029	0.88635	0.88635	0.88635	0.87820	0.85659
4	K10NVEPC	0.60865	0.55791	0.71201	0.84142	0.69769	0.44613	0.84142	0.55782	0.55782	0.55782	0.55791	0.54524
5	K12NVEPC	0.59199	0.54045	0.70058	0.83380	0.68450	0.43096	0.83380	0.53957	0.53957	0.53957	0.54045	0.52917
6	K14NVEPC	0.60568	0.55304	0.71418	0.84759	0.70226	0.45378	0.84759	0.55239	0.55239	0.55239	0.55304	0.54148
7	K16NVEPC	0.60405	0.54838	0.72090	0.86303	0.71393	0.46494	0.86303	0.54736	0.54736	0.54736	0.54838	0.53743
8	K24NVEPC	0.65842	0.59796	0.76878	0.90798	0.78053	0.55984	0.90798	0.59843	0.59843	0.59843	0.59796	0.58478
9	K32NVEPC	0.71413	0.65190	0.80778	0.93317	0.82999	0.63785	0.93317	0.65404	0.65404	0.65404	0.65190	0.63614

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_NVADJ	FB_NVADJ	MA_NVADJ	AP_NVADJ	MY_NVADJ	JN_NVADJ	JL_NVADJ	AU_NVADJ	SP_NVADJ	OC_NVADJ	NO_NVADJ	DE_NVADJ
1	0.39974	0.50488	0.83336	0.86619	0.67586	0.45798	0.86619	0.43488	0.43488	0.43488	0.50470	0.60858
2	0.31129	0.45063	0.81625	0.95609	0.78431	0.56084	0.95609	0.36639	0.36639	0.36639	0.45035	0.57973
3	0.21533	0.39598	0.75493	0.85329	0.93756	0.78435	0.85329	0.29491	0.29491	0.29491	0.39557	0.55099
4	0.05555	0.17914	0.51031	0.67784	0.65872	0.44522	0.67784	0.10767	0.10767	0.10767	0.17882	0.28873
5	0.03678	0.15969	0.48839	0.65650	0.63524	0.42527	0.65650	0.08927	0.08927	0.08927	0.15936	0.26834
6	0.02470	0.15302	0.48762	0.65603	0.64343	0.44273	0.65603	0.08022	0.08022	0.08022	0.15268	0.26568
7	-0.00235	0.13019	0.47056	0.64387	0.63648	0.44275	0.64387	0.05635	0.05635	0.05635	0.12983	0.24520
8	-0.07415	0.08677	0.44561	0.61562	0.64890	0.50130	0.61562	0.00000	0.00000	0.00000	0.08433	0.21782
9	-0.09845	0.07794	0.45451	0.61795	0.67843	0.56273	0.61795	-0.01563	-0.01563	-0.01563	0.07745	0.22458

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K04TVEPC	0.68842	0.64014	0.62523	0.49714	0.69373	0.73484	0.49714	0.63533	0.63533	0.63533	0.64014	0.66943
2	K06TVEPC	0.66667	0.71651	0.55877	0.34041	0.81012	0.73966	0.34041	0.72300	0.72300	0.72300	0.71651	0.71410
3	K08TVEPC	0.92951	0.80041	0.82881	0.73738	0.71853	0.79979	0.73738	0.79726	0.79726	0.79726	0.80041	0.83031
4	K10TVEPC	0.75212	0.70068	0.72408	0.61191	0.72374	0.71140	0.61191	0.69268	0.69268	0.69268	0.70068	0.73640
5	K12TVEPC	0.81230	0.70301	0.83170	0.79330	0.64164	0.69272	0.79330	0.68677	0.68677	0.68677	0.70301	0.75685
6	K14TVEPC	0.85001	0.75386	0.87384	0.83186	0.68417	0.73747	0.83186	0.73884	0.73884	0.73884	0.75386	0.80574
7	K16TVEPC	0.86312	0.80599	0.86526	0.78039	0.77508	0.79268	0.78039	0.79602	0.79602	0.79602	0.80599	0.84786
8	K24TVEPC	0.77003	0.86213	0.71812	0.51828	0.94656	0.93166	0.51828	0.87053	0.87053	0.87053	0.86213	0.86396
9	K32TVEPC	0.81421	0.85754	0.77488	0.60230	0.91008	0.89244	0.60230	0.85989	0.85989	0.85989	0.85754	0.87253

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.56744	0.61674	0.50336	0.36512	0.31383	0.30760	0.36512	0.56721	0.56721	0.56721	0.39096	0.61535
2	0.24587	0.40262	0.49342	0.33396	0.50845	0.42955	0.33396	0.33538	0.33538	0.33538	0.60711	0.51752
3	0.55678	0.61220	0.79510	0.64531	0.38732	0.39892	0.64531	0.54265	0.54265	0.54265	0.58249	0.75117
4	0.02606	0.18731	0.47372	0.47259	0.54728	0.49777	0.47259	0.10334	0.10334	0.10334	0.68604	0.34130
5	-0.07238	0.11122	0.47365	0.55135	0.51576	0.51523	0.55135	0.02241	0.02241	0.02241	0.64313	0.27755
6	-0.22302	0.00411	0.39397	0.48812	0.59556	0.59400	0.48812	-0.09645	-0.09645	-0.09645	0.62179	0.18633
7	-0.42088	-0.15566	0.25665	0.34812	0.74186	0.70204	0.34812	-0.27276	-0.27276	-0.27276	0.57049	0.04676
8	-0.63089	-0.41860	0.04990	0.12381	0.86633	0.92817	0.12381	-0.57021	-0.57021	-0.57021	0.46169	-0.17639
9	-0.83033	-0.56795	-0.05253	0.06845	0.76273	0.82539	0.06845	-0.72560	-0.72560	-0.72560	0.36992	-0.31491

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_WVEPC	FB_WVEPC	MA_WVEPC	AP_WVEPC	MY_WVEPC	JN_WVEPC	JL_WVEPC	AU_WVEPC	SP_WVEPC	OC_WVEPC	NO_WVEPC	DE_WVEPC
1	K04WVEPC	0.87957	0.90646	0.88462	0.84120	0.87518	0.85764	0.84120	0.88062	0.88062	0.88062	0.90646	0.92541
2	K06WVEPC	0.93092	0.92752	0.86639	0.79051	0.79473	0.83788	0.79051	0.91778	0.91778	0.91778	0.92752	0.91700
3	K08WVEPC	0.82392	0.77618	0.70480	0.65166	0.61346	0.73411	0.65166	0.80461	0.80461	0.80461	0.77618	0.72178
4	K10WVEPC	0.81908	0.82672	0.80858	0.79915	0.76712	0.85974	0.79915	0.84962	0.84962	0.84962	0.82672	0.78896
5	K12WVEPC	0.78930	0.82861	0.83616	0.84338	0.81400	0.88971	0.84338	0.82660	0.82660	0.82660	0.82861	0.80124
6	K14WVEPC	0.71916	0.79217	0.86300	0.89768	0.86948	0.90429	0.89768	0.76037	0.76037	0.76037	0.79217	0.80086
7	K16WVEPC	0.76928	0.84090	0.88971	0.91452	0.89163	0.92937	0.91452	0.80736	0.80736	0.80736	0.84090	0.84007
8	K24WVEPC	0.81952	0.87252	0.91839	0.92469	0.94140	0.92296	0.92469	0.84617	0.84617	0.84617	0.87252	0.91201
9	K32WVEPC	0.75950	0.76482	0.70417	0.66037	0.71070	0.69693	0.66037	0.76486	0.76486	0.76486	0.76482	0.77045

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_WVADJ	FB_WVADJ	MA_WVADJ	AP_WVADJ	MY_WVADJ	JN_WVADJ	JL_WVADJ	AU_WVADJ	SP_WVADJ	OC_WVADJ	NO_WVADJ	DE_WVADJ
1	0.84467	0.79943	0.66983	0.53054	0.38249	0.30055	0.53054	0.79519	0.79519	0.79519	0.79943	0.77977
2	0.91910	0.84099	0.67446	0.51258	0.35709	0.30188	0.51258	0.85203	0.85203	0.85203	0.84099	0.79440
3	0.75069	0.64946	0.50633	0.38994	0.25437	0.24408	0.38994	0.68932	0.68932	0.68932	0.64946	0.57702
4	0.73847	0.81949	0.70029	0.57650	0.38347	0.34462	0.57650	0.82172	0.82172	0.82172	0.81949	0.76039
5	0.63018	0.74285	0.79220	0.66556	0.44513	0.39013	0.66556	0.71926	0.71926	0.71926	0.74285	0.75772
6	0.42236	0.55660	0.76471	0.83287	0.55900	0.46619	0.83287	0.51070	0.51070	0.51070	0.55660	0.60901
7	0.43470	0.57367	0.77279	0.86185	0.58226	0.48666	0.86185	0.52538	0.52538	0.52538	0.57367	0.62245
8	-0.02992	0.11320	0.36207	0.61260	0.87250	0.68592	0.61260	0.07199	0.07199	0.07199	0.11320	0.19434
9	-0.18445	-0.04571	0.16304	0.34800	0.69598	0.57042	0.34800	-0.08334	-0.08334	-0.08334	-0.04571	0.02468

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K04NVEPC	0.70367	0.77368	0.90875	0.88315	0.59749	0.44170	0.83341	0.77368	0.70367	0.69074	0.69903	0.92476
2	K06NVEPC	0.76943	0.83185	0.93578	0.91804	0.66478	0.51858	0.87869	0.83185	0.76943	0.75884	0.76590	0.94929
3	K08NVEPC	0.86462	0.89379	0.96980	0.97058	0.85180	0.71321	0.96236	0.89379	0.86462	0.84634	0.85659	0.96432
4	K10NVEPC	0.55124	0.62754	0.79847	0.76125	0.44613	0.28970	0.69769	0.62754	0.55124	0.53557	0.54524	0.81772
5	K12NVEPC	0.53458	0.61386	0.78679	0.74908	0.43096	0.27614	0.68450	0.61386	0.53458	0.52005	0.52917	0.80744
6	K14NVEPC	0.54699	0.62691	0.80180	0.76524	0.45378	0.29832	0.70226	0.62691	0.54699	0.53230	0.54148	0.82186
7	K16NVEPC	0.54271	0.62823	0.81367	0.77726	0.46494	0.30772	0.71393	0.62823	0.54271	0.52846	0.53743	0.83482
8	K24NVEPC	0.59102	0.67598	0.86678	0.83575	0.55984	0.40604	0.78053	0.67598	0.59102	0.57504	0.58478	0.88441
9	K32NVEPC	0.64344	0.72136	0.90324	0.87712	0.63785	0.49124	0.82999	0.72136	0.64344	0.62554	0.63614	0.91649

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_IVADJ	FB_IVADJ	MA_IVADJ	AP_IVADJ	MY_IVADJ	JN_IVADJ	JL_IVADJ	AU_IVADJ	SP_IVADJ	OC_IVADJ	NO_IVADJ	DE_IVADJ
1	0.56001	0.75586	0.83064	0.77218	0.45798	0.30567	0.68245	0.75586	0.56001	0.64696	0.60858	0.84629
2	0.51909	0.72702	0.93012	0.88349	0.56084	0.39500	0.79197	0.72702	0.51909	0.62951	0.57973	0.94239
3	0.47851	0.68912	0.87470	0.92168	0.78435	0.59293	0.94671	0.68912	0.47851	0.61151	0.55099	0.86848
4	0.23826	0.41921	0.66670	0.65590	0.44522	0.26102	0.65153	0.41921	0.23826	0.32964	0.28873	0.66111
5	0.21827	0.39760	0.62295	0.63260	0.42527	0.25260	0.62808	0.39760	0.21827	0.30910	0.26834	0.63812
6	0.21374	0.39671	0.62416	0.63630	0.44273	0.27590	0.63600	0.39671	0.21374	0.30814	0.26568	0.63856
7	0.19216	0.37796	0.61075	0.62559	0.44275	0.29108	0.62875	0.37796	0.19216	0.28879	0.26320	0.62536
8	0.15647	0.35539	0.59184	0.61846	0.50130	0.40493	0.64000	0.35539	0.15647	0.26889	0.21782	0.60247
9	0.15701	0.36655	0.60252	0.63587	0.56273	0.48674	0.66885	0.36655	0.15701	0.28105	0.22458	0.60988

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K04TVEPC	0.65473	0.66332	0.48776	0.62432	0.73484	0.56651	0.69373	0.66332	0.65473	0.68230	0.66943	0.49610
2	K06TVEPC	0.71655	0.64715	0.37931	0.61913	0.73966	0.61810	0.81012	0.64715	0.71655	0.71034	0.71410	0.36756
3	K08TVEPC	0.81547	0.84571	0.72328	0.77261	0.79979	0.69897	0.71853	0.84571	0.81547	0.84279	0.83031	0.73164
4	K10TVEPC	0.71847	0.74987	0.58216	0.70200	0.71140	0.54173	0.72374	0.74987	0.71847	0.75573	0.73640	0.59404
5	K12TVEPC	0.72940	0.81685	0.73583	0.75210	0.69272	0.53046	0.64164	0.81685	0.72940	0.78574	0.75685	0.75787
6	K14TVEPC	0.77940	0.86191	0.79508	0.80849	0.73747	0.59695	0.68417	0.86191	0.77940	0.83254	0.80574	0.80925
7	K16TVEPC	0.82686	0.87715	0.77086	0.84191	0.79268	0.66636	0.77508	0.87715	0.82686	0.86843	0.84786	0.77718
8	K24TVEPC	0.86411	0.80236	0.62547	0.84772	0.93166	0.83822	0.94656	0.80236	0.86411	0.85918	0.86396	0.59266
9	K32TVEPC	0.86577	0.83881	0.66463	0.84802	0.89244	0.78158	0.91008	0.83881	0.86577	0.87665	0.87253	0.64663

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.63794	0.55471	0.33823	0.36942	0.30760	0.23359	0.31624	0.55471	0.63794	0.59358	0.61535	0.34912
2	0.46447	0.54347	0.36492	0.50826	0.42955	0.35359	0.51235	0.54347	0.46447	0.56333	0.51752	0.36031
3	0.68416	0.84273	0.59763	0.54461	0.39892	0.34342	0.39030	0.84273	0.68416	0.81192	0.75117	0.61600
4	0.26676	0.45151	0.48953	0.69435	0.49777	0.37338	0.55149	0.45151	0.26676	0.41247	0.34130	0.48645
5	0.19600	0.41993	0.56503	0.71345	0.51523	0.38864	0.51972	0.41993	0.19600	0.35689	0.27755	0.56425
6	0.09753	0.33687	0.52795	0.69644	0.59400	0.47362	0.60013	0.33687	0.09753	0.27141	0.18633	0.51823
7	-0.05088	0.20230	0.41075	0.62980	0.70204	0.58133	0.74756	0.20230	-0.05088	0.13838	0.04676	0.39249
8	-0.29070	-0.00424	0.21092	0.49263	0.92817	0.82877	0.85844	-0.00424	-0.29070	-0.07396	-0.17639	0.18117
9	-0.43510	-0.12405	0.14554	0.40724	0.82539	0.73545	0.75461	-0.12405	-0.43510	-0.20551	-0.31491	0.11976

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_NVEPC	FB_NVEPC	MA_NVEPC	AP_NVEPC	MY_NVEPC	JN_NVEPC	JL_NVEPC	AU_NVEPC	SP_NVEPC	OC_NVEPC	NO_NVEPC	DE_NVEPC
1	K04NVEPC	0.91915	0.90550	0.77938	0.85831	0.85764	0.84442	0.87518	0.90550	0.91915	0.92447	0.92541	0.80629
2	K06NVEPC	0.92604	0.88441	0.66315	0.74982	0.83788	0.83217	0.79473	0.88441	0.92604	0.90053	0.91700	0.70549
3	K08NVEPC	0.75675	0.69543	0.51312	0.55218	0.73411	0.74686	0.61346	0.69543	0.75675	0.68383	0.72178	0.55013
4	K10NVEPC	0.81435	0.79141	0.71944	0.72517	0.85974	0.87156	0.76712	0.79141	0.81435	0.77150	0.78896	0.74039
5	K12NVEPC	0.81582	0.81697	0.79026	0.78322	0.88971	0.89975	0.81400	0.81697	0.81582	0.79486	0.80124	0.80426
6	K14NVEPC	0.79319	0.83961	0.88745	0.85683	0.90429	0.91080	0.86948	0.83961	0.79319	0.81299	0.80086	0.88990
7	K16NVEPC	0.83553	0.87056	0.89512	0.87806	0.92937	0.93416	0.89163	0.87056	0.83553	0.84820	0.84007	0.90100
8	K24NVEPC	0.89792	0.92116	0.92562	0.95622	0.92296	0.92027	0.94140	0.92116	0.89792	0.92107	0.91201	0.93139
9	K32NVEPC	0.77638	0.73161	0.62906	0.72414	0.69693	0.68768	0.71070	0.73161	0.77638	0.75753	0.77045	0.64737

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_NVADJ	FB_NVADJ	MA_NVADJ	AP_NVADJ	MY_NVADJ	JN_NVADJ	JL_NVADJ	AU_NVADJ	SP_NVADJ	OC_NVADJ	NO_NVADJ	DE_NVADJ
1	0.79215	0.71472	0.37874	0.41066	0.30055	0.24597	0.38990	0.71472	0.79215	0.76199	0.77977	0.42427
2	0.82051	0.71768	0.33131	0.36883	0.30188	0.24921	0.36401	0.71768	0.82051	0.76312	0.79440	0.38166
3	0.61876	0.52078	0.23657	0.25066	0.24408	0.20640	0.25930	0.52078	0.61876	0.53477	0.57702	0.27465
4	0.80275	0.71449	0.39988	0.39685	0.34462	0.29038	0.39091	0.71449	0.80275	0.72736	0.76039	0.44562
5	0.75190	0.80685	0.48050	0.46888	0.39013	0.32793	0.45376	0.80685	0.75190	0.76995	0.75772	0.52953
6	0.58077	0.70433	0.63440	0.60307	0.46619	0.39028	0.56984	0.70433	0.58077	0.64020	0.60901	0.68885
7	0.59511	0.71439	0.64995	0.62773	0.48666	0.40659	0.59355	0.71439	0.59511	0.65175	0.62245	0.70842
8	0.15477	0.30045	0.89736	0.94223	0.68592	0.56847	0.88941	0.30045	0.15477	0.23215	0.19434	0.82345
9	-0.00995	0.11454	0.54417	0.63910	0.57042	0.46784	0.68192	0.11454	-0.00995	0.05676	0.02468	0.49915

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_IVEPC	FB_IVEPC	MA_IVEPC	AP_IVEPC	MY_IVEPC	JN_IVEPC	JL_IVEPC	AU_IVEPC	SP_IVEPC	OC_IVEPC	NO_IVEPC	DE_IVEPC
1	K04IVEPC	0.78062	0.74861	0.70367	0.69074	0.90875	0.87340	0.69903	0.77183	0.78062	0.77183	0.77183	0.74861
2	K06IVEPC	0.81965	0.80559	0.76943	0.75884	0.93578	0.91090	0.76590	0.82015	0.81965	0.82015	0.82015	0.80559
3	K08IVEPC	0.89555	0.90158	0.86462	0.84634	0.96980	0.96945	0.85659	0.90466	0.89555	0.90466	0.90466	0.90158
4	K10IVEPC	0.67167	0.60865	0.55124	0.53557	0.79847	0.74780	0.54524	0.64641	0.67167	0.64641	0.64641	0.60865
5	K12IVEPC	0.65856	0.59199	0.53458	0.52005	0.78679	0.73549	0.52917	0.63149	0.65856	0.63149	0.63149	0.59199
6	K14IVEPC	0.67452	0.60568	0.54699	0.53230	0.80180	0.75201	0.54148	0.64628	0.67452	0.64628	0.64628	0.60568
7	K16IVEPC	0.68053	0.60405	0.54271	0.52846	0.81367	0.76406	0.53743	0.64839	0.68053	0.64839	0.64839	0.60405
8	K24IVEPC	0.74446	0.65842	0.59102	0.57504	0.86678	0.82428	0.58478	0.70724	0.74446	0.70724	0.70724	0.65842
9	K32IVEPC	0.80222	0.71413	0.64344	0.62554	0.90324	0.86726	0.63614	0.76377	0.80222	0.76377	0.76377	0.71413

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFS. OF HISTORICAL/OPERATIONAL VELOCITIES FOR IMMEDIATE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_IVADJ	FB_IVADJ	MA_IVADJ	AP_IVADJ	MY_IVADJ	JN_IVADJ	JL_IVADJ	AU_IVADJ	SP_IVADJ	OC_IVADJ	NO_IVADJ	DE_IVADJ
1	0.27159	0.39974	0.56001	0.64696	0.83064	0.75276	0.60858	0.34463	0.27159	0.34463	0.34463	0.39974
2	0.14886	0.31129	0.51909	0.62951	0.93012	0.86410	0.57973	0.23794	0.14886	0.23794	0.23794	0.31129
3	0.01372	0.21533	0.47851	0.61151	0.87470	0.93514	0.55099	0.12099	0.01372	0.12099	0.12099	0.21533
4	-0.10141	0.05555	0.23826	0.32964	0.64670	0.65646	0.28873	-0.01463	-0.10141	-0.01463	-0.01463	0.05555
5	-0.12105	0.03678	0.21827	0.30910	0.62295	0.63306	0.26834	-0.03378	-0.12105	-0.03378	-0.03378	0.03678
6	-0.14022	0.02470	0.21374	0.30814	0.62416	0.63784	0.26568	-0.04920	-0.14022	-0.04920	-0.04920	0.02470
7	-0.17572	-0.00235	0.19216	0.28879	0.61075	0.62799	0.24520	-0.08005	-0.17572	-0.08005	-0.08005	-0.00235
8	-0.28345	-0.07415	0.15647	0.26889	0.59184	0.62479	0.21782	-0.16881	-0.28345	-0.16881	-0.16881	-0.07415
9	-0.32826	-0.09845	0.15701	0.28105	0.60252	0.64450	0.22458	-0.20273	-0.32826	-0.20273	-0.20273	-0.09845

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_TVEPC	FB_TVEPC	MA_TVEPC	AP_TVEPC	MY_TVEPC	JN_TVEPC	JL_TVEPC	AU_TVEPC	SP_TVEPC	OC_TVEPC	NO_TVEPC	DE_TVEPC
1	K04TVEPC	0.62174	0.68842	0.65473	0.68230	0.48776	0.64069	0.66943	0.68312	0.62174	0.68312	0.68312	0.68842
2	K06TVEPC	0.39686	0.66667	0.71655	0.71034	0.37931	0.66970	0.71410	0.54862	0.39686	0.54862	0.54862	0.66667
3	K08TVEPC	0.82405	0.92951	0.81547	0.84279	0.72328	0.75639	0.83031	0.92074	0.82405	0.92074	0.92074	0.92951
4	K10TVEPC	0.66393	0.75212	0.71847	0.75573	0.58216	0.70915	0.73640	0.73824	0.66393	0.73824	0.73824	0.75212
5	K12TVEPC	0.81974	0.81230	0.72940	0.78574	0.73583	0.72437	0.75685	0.85465	0.81974	0.85465	0.85465	0.81230
6	K14TVEPC	0.81991	0.85001	0.77940	0.83254	0.79308	0.77945	0.80574	0.87350	0.81991	0.87350	0.87350	0.85001
7	K16TVEPC	0.75345	0.86312	0.82686	0.86843	0.77086	0.83015	0.84786	0.84310	0.75345	0.84310	0.84310	0.86312
8	K24TVEPC	0.39551	0.77003	0.86411	0.85918	0.62547	0.88841	0.86396	0.59860	0.39551	0.59860	0.59860	0.77003
9	K32TVEPC	0.52291	0.81421	0.86577	0.87665	0.66463	0.87420	0.87253	0.69071	0.52291	0.69071	0.69071	0.81421

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR MIDDLE CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_TVADJ	FB_TVADJ	MA_TVADJ	AP_TVADJ	MY_TVADJ	JN_TVADJ	JL_TVADJ	AU_TVADJ	SP_TVADJ	OC_TVADJ	NO_TVADJ	DE_TVADJ
1	0.40923	0.56744	0.63794	0.59358	0.33823	0.36144	0.61535	0.51008	0.40923	0.51008	0.51008	0.56744
2	0.05493	0.24587	0.46447	0.56333	0.36492	0.52415	0.51752	0.14331	0.05493	0.14331	0.14331	0.24587
3	0.33055	0.55678	0.68416	0.81192	0.59763	0.50845	0.75117	0.46644	0.33055	0.46644	0.46644	0.55678
4	-0.16129	0.02606	0.26676	0.41247	0.48953	0.66872	0.34130	-0.07012	-0.16129	-0.07012	-0.07012	0.02606
5	-0.31493	-0.07238	0.19600	0.35689	0.56503	0.72265	0.27755	-0.19393	-0.31493	-0.19393	-0.19393	-0.07238
6	-0.47712	-0.22302	0.09753	0.27141	0.52795	0.71280	0.18633	-0.35954	-0.47712	-0.35954	-0.35954	-0.22302
7	-0.63213	-0.42088	-0.05088	0.13838	0.41075	0.66945	0.04676	-0.54946	-0.63213	-0.54946	-0.54946	-0.42088
8	-0.48153	-0.63089	-0.29070	-0.07396	0.21092	0.57504	-0.17639	-0.60176	-0.48153	-0.60176	-0.60176	-0.63089
9	-0.75630	-0.83033	-0.43510	-0.20551	0.14554	0.48174	-0.31491	-0.84198	-0.75630	-0.84198	-0.84198	-0.83033

FORT PECK UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_IVEPC	FB_IVEPC	MA_IVEPC	AP_IVEPC	MY_IVEPC	JN_IVEPC	JL_IVEPC	AU_IVEPC	SP_IVEPC	OC_IVEPC	NO_IVEPC	DE_IVEPC
1	K04IVEPC	0.87835	0.87957	0.91915	0.92447	0.77938	0.88349	0.92541	0.87683	0.87835	0.87683	0.87683	0.87957
2	K06IVEPC	0.95961	0.93092	0.92604	0.90053	0.66315	0.78038	0.91700	0.94253	0.95961	0.94253	0.94253	0.93092
3	K08IVEPC	0.80907	0.82392	0.75675	0.68383	0.51312	0.56751	0.72178	0.82175	0.80907	0.82175	0.82175	0.82392
4	K10IVEPC	0.75757	0.81908	0.81435	0.77150	0.71944	0.72623	0.78896	0.78535	0.75757	0.78535	0.78535	0.81908
5	K12IVEPC	0.72216	0.78930	0.81582	0.79486	0.79026	0.77841	0.80124	0.75240	0.72216	0.75240	0.75240	0.78930
6	K14IVEPC	0.64633	0.71916	0.79319	0.81299	0.88745	0.84153	0.80086	0.67953	0.64633	0.67953	0.67953	0.71916
7	K16IVEPC	0.70003	0.76928	0.83553	0.84820	0.89512	0.86769	0.84007	0.73172	0.70003	0.73172	0.73172	0.76928
8	K24IVEPC	0.76371	0.81952	0.89792	0.92107	0.92562	0.96089	0.91201	0.79034	0.76371	0.79034	0.79034	0.81952
9	K32IVEPC	0.73873	0.75950	0.77638	0.75753	0.62906	0.75401	0.77045	0.74915	0.73873	0.74915	0.74915	0.75950

FORT PECK TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR NEAR CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_WVADJ	FB_WVADJ	MA_WVADJ	AP_WVADJ	MY_WVADJ	JN_WVADJ	JL_WVADJ	AU_WVADJ	SP_WVADJ	OC_WVADJ	NO_WVADJ	DE_WVADJ
1	0.79052	0.84467	0.79215	0.76199	0.37874	0.42054	0.77977	0.85453	0.79052	0.85453	0.85453	0.84467
2	0.83399	0.91910	0.82051	0.76312	0.33131	0.38190	0.79440	0.89141	0.83399	0.89141	0.89141	0.91910
3	0.77376	0.75069	0.61876	0.53477	0.23657	0.25629	0.57702	0.79947	0.77376	0.79947	0.79947	0.75069
4	0.56198	0.73847	0.80275	0.72736	0.39988	0.39540	0.76039	0.64957	0.56198	0.64957	0.64957	0.73847
5	0.45037	0.63018	0.75190	0.76995	0.48050	0.46362	0.75772	0.53943	0.45037	0.53943	0.53943	0.63018
6	0.24678	0.42236	0.58077	0.64020	0.63440	0.58927	0.60901	0.33401	0.24678	0.33401	0.33401	0.42236
7	0.24947	0.43470	0.59511	0.65175	0.64995	0.61715	0.62245	0.34229	0.24947	0.34229	0.34229	0.43470
8	-0.25411	-0.02992	0.15477	0.23215	0.89736	0.95182	0.19434	-0.13797	-0.25411	-0.13797	-0.13797	-0.02992
9	-0.42041	-0.18445	-0.00995	0.05676	0.54417	0.66977	0.02468	-0.29585	-0.42041	-0.29585	-0.29585	-0.18445

APPENDIX E: TOPWIDTHS AND CORRELATION COEFFICIENTS OF YELLOWSTONE RIVER REACH OF THE FORT PECK TAILWATER

Tables of coefficients are presented in two major groups. The first group contains the correlation coefficients for depth and the second contains the correlations for velocity. Within each group, the tables occur in three major subsets--one subset for each of the types of water year (median flow, high flow, and low flow). Within each subset, the coefficients are separated by channel category and then by topwidth adjustment. Within each pair of tables, the first table contains coefficients not adjusted for topwidth and the second member of the pair contains coefficients adjusted for topwidth.

YELLOW STONE CHANNEL TOPWIDTHS BY DISCHARGE

OBS	Q	YELLOWSTONE REACH
1	4000	465
2	6000	563
3	8000	595
4	10000	655
5	12000	655
6	14000	784
7	16000	788
8	20000	980
9	24000	1043
10	35000	1240

YELL_ST UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K0400EPC	0.96806	0.99238	0.77173	0.70512	0.65370	0.44802	0.76032	0.99238	0.98237	0.99238	0.99238	0.98237
2	K0600EPC	0.94369	0.98230	0.81902	0.75434	0.69520	0.49811	0.80486	0.98230	0.96429	0.98230	0.98230	0.96429
3	K0800EPC	0.82687	0.90807	0.93328	0.88244	0.80984	0.65236	0.91512	0.90807	0.86607	0.90807	0.90807	0.86607
4	K1000EPC	0.61954	0.74263	0.98566	0.95855	0.88169	0.78651	0.96702	0.74263	0.67672	0.74263	0.74263	0.67672
5	K1200EPC	0.27371	0.43184	0.91621	0.92697	0.86224	0.86199	0.90297	0.43184	0.34534	0.43184	0.43184	0.34534
6	K1400EPC	0.68584	0.79871	0.98808	0.96239	0.89952	0.79294	0.97601	0.79871	0.73877	0.79871	0.79871	0.73877
7	K1600EPC	0.46062	0.60324	0.97559	0.97846	0.92569	0.88586	0.96865	0.60324	0.52609	0.60324	0.60324	0.52609
8	K2000EPC	0.98798	0.99661	0.71691	0.65293	0.61753	0.40761	0.71200	0.99661	0.99541	0.99661	0.99661	0.99541
9	K2400EPC	0.81408	0.90016	0.95359	0.91687	0.86328	0.72115	0.94492	0.90016	0.85553	0.90016	0.90016	0.85553
10	K3500EPC	0.69565	0.80593	0.98842	0.97392	0.93259	0.83366	0.98637	0.80593	0.74758	0.80593	0.80593	0.74758

YELL_ST TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.62175	0.62107	0.47094	0.39743	0.34001	0.22425	0.42854	0.62107	0.62277	0.62107	0.62107	0.62277
2	0.73384	0.74432	0.60513	0.51478	0.43781	0.30187	0.54926	0.74432	0.74014	0.74432	0.74432	0.74014
3	0.67954	0.72719	0.72874	0.63642	0.53899	0.41782	0.66000	0.72719	0.70254	0.72719	0.72719	0.70254
4	0.56049	0.65468	0.84726	0.76103	0.64598	0.55453	0.76775	0.65468	0.60430	0.65468	0.65468	0.60430
5	0.24763	0.38069	0.78756	0.73596	0.63173	0.60775	0.71691	0.38069	0.30838	0.38069	0.38069	0.30838
6	0.62900	0.75464	0.95956	0.91456	0.78884	0.66918	0.92751	0.75464	0.68790	0.75464	0.75464	0.68790
7	0.41990	0.56671	0.94230	0.93458	0.81593	0.75141	0.92521	0.56671	0.48700	0.56671	0.56671	0.48700
8	0.63864	0.67871	0.51181	0.53026	0.55813	0.38523	0.57823	0.67871	0.66089	0.67871	0.67871	0.66089
9	0.45539	0.53671	0.60194	0.67459	0.71940	0.63266	0.69523	0.53671	0.49454	0.53671	0.53671	0.49454
10	0.19985	0.26683	0.36839	0.48401	0.57165	0.55458	0.49020	0.26683	0.23136	0.26683	0.26683	0.23136

YELL_ST UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K0400EPC	0.99238	0.90753	0.50397	0.61804	0.40561	-0.00515	0.62923	0.97404	0.97404	0.97404	0.97404	0.99238
2	K0600EPC	0.98230	0.93651	0.56554	0.66851	0.45641	0.04575	0.67687	0.98648	0.98648	0.98648	0.98648	0.98230
3	K0800EPC	0.90807	0.98673	0.74332	0.80920	0.61557	0.23018	0.80947	0.98158	0.98158	0.98158	0.98158	0.90807
4	K1000EPC	0.74263	0.95892	0.89119	0.90946	0.75914	0.44125	0.90098	0.88939	0.88939	0.88939	0.88939	0.74263
5	K1200EPC	0.43184	0.79100	0.96158	0.91923	0.85099	0.66798	0.90187	0.64922	0.64922	0.64922	0.64922	0.43184
6	K1400EPC	0.79871	0.98066	0.87888	0.91438	0.76417	0.43512	0.91021	0.92596	0.92596	0.92596	0.92596	0.79871
7	K1600EPC	0.60324	0.89598	0.96681	0.96081	0.86834	0.62789	0.95061	0.78636	0.78636	0.78636	0.78636	0.60324
8	K2000EPC	0.99661	0.87047	0.44202	0.56946	0.36559	-0.03638	0.58474	0.95345	0.95345	0.95345	0.95345	0.99661
9	K2400EPC	0.90016	0.99545	0.79060	0.85770	0.68729	0.32231	0.85998	0.98047	0.98047	0.98047	0.98047	0.90016
10	K3500EPC	0.80593	0.98171	0.89344	0.93744	0.80694	0.49290	0.93689	0.92756	0.92756	0.92756	0.92756	0.80593

YELL_ST TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.62107	0.55381	0.28406	0.32844	0.20187	-0.00264	0.33212	0.59439	0.59439	0.59439	0.59439	0.62912
2	0.74432	0.69193	0.38594	0.43014	0.27503	0.02623	0.43255	0.72886	0.72886	0.72886	0.72886	0.75396
3	0.72719	0.77048	0.53609	0.55026	0.39202	0.13947	0.54669	0.76646	0.76646	0.76646	0.76646	0.73661
4	0.65468	0.82427	0.70755	0.68080	0.53220	0.29431	0.66986	0.76450	0.76450	0.76450	0.76450	0.66316
5	0.38069	0.67993	0.76343	0.68811	0.59660	0.44555	0.67052	0.55805	0.55805	0.55805	0.55805	0.38562
6	0.75464	0.95234	0.83520	0.81929	0.64124	0.34739	0.80999	0.89923	0.89923	0.89923	0.89923	0.74372
7	0.56671	0.86541	0.92345	0.86527	0.73237	0.50385	0.85026	0.75953	0.75953	0.75953	0.75953	0.55842
8	0.67871	0.62144	0.35897	0.50113	0.34770	-0.03631	0.51903	0.68068	0.68068	0.68068	0.68068	0.66169
9	0.53671	0.62836	0.58169	0.69302	0.60733	0.30229	0.70185	0.61890	0.61890	0.61890	0.61890	0.52034
10	0.26683	0.36589	0.44401	0.54639	0.54291	0.36340	0.55511	0.34570	0.34570	0.34570	0.34570	0.24941

YELL_ST UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_DDEPC	FB_DDEPC	MA_DDEPC	AP_DDEPC	MY_DDEPC	JN_DDEPC	JL_DDEPC	AU_DDEPC	SP_DDEPC	OC_DDEPC	NO_DDEPC	DE_DDEPC
1	K040DEPC	0.97055	0.96806	0.97404	0.84982	0.57602	0.58923	0.94869	0.97995	0.98733	0.96806	0.96806	0.97995
2	K060DEPC	0.97578	0.94369	0.98648	0.88788	0.63398	0.64281	0.96893	0.96121	0.97572	0.94369	0.94369	0.96121
3	K080DEPC	0.95209	0.82687	0.98158	0.96938	0.79645	0.79387	0.98964	0.86148	0.89791	0.82687	0.82687	0.86148
4	K100DEPC	0.84368	0.61954	0.88939	0.97993	0.92125	0.90721	0.92680	0.67117	0.73015	0.61954	0.61954	0.67117
5	K120DEPC	0.59298	0.27371	0.64922	0.85794	0.95761	0.93331	0.71868	0.33980	0.41922	0.27371	0.27371	0.33980
6	K140DEPC	0.88858	0.68584	0.92596	0.99250	0.91405	0.90756	0.95651	0.73392	0.78777	0.68584	0.68584	0.73392
7	K160DEPC	0.73994	0.46062	0.78636	0.94182	0.97822	0.96529	0.84147	0.52107	0.59172	0.46062	0.46062	0.52107
8	K200DEPC	0.95929	0.98798	0.95345	0.80386	0.51666	0.53695	0.92019	0.99389	0.99351	0.98798	0.98798	0.99389
9	K240DEPC	0.95487	0.81408	0.98047	0.98368	0.83940	0.84224	0.99282	0.85150	0.89109	0.81408	0.81408	0.85150
10	K350DEPC	0.89546	0.69565	0.92756	0.99317	0.92730	0.92845	0.95760	0.74331	0.79598	0.69565	0.69565	0.74331

YELL_ST TOPWIDTH ADJUSTED CORR. COEFFICIENTS OFHISTORICAL/OPERATIONAL DEPTHS FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_DDADJ	FB_DDADJ	MA_DDADJ	AP_DDADJ	MY_DDADJ	JN_DDADJ	JL_DDADJ	AU_DDADJ	SP_DDADJ	OC_DDADJ	NO_DDADJ	DE_DDADJ
1	0.85266	0.62175	0.59439	0.51859	0.32467	0.31767	0.57892	0.67160	0.72529	0.62175	0.62175	0.67160
2	0.93797	0.73384	0.72886	0.65601	0.43264	0.41960	0.71589	0.79759	0.86782	0.73384	0.73384	0.79759
3	0.85899	0.67954	0.76646	0.75693	0.57441	0.54765	0.77275	0.75546	0.84401	0.67954	0.67954	0.75546
4	0.66779	0.56049	0.76450	0.84233	0.73161	0.68895	0.79666	0.64793	0.70477	0.56049	0.56049	0.64793
5	0.46935	0.24763	0.55805	0.73747	0.76028	0.70877	0.61776	0.32803	0.40465	0.24763	0.24763	0.32803
6	0.49173	0.62900	0.89923	0.96385	0.86862	0.82496	0.92889	0.61980	0.59985	0.62900	0.62900	0.61980
7	0.40410	0.41990	0.75953	0.90968	0.93435	0.88191	0.81276	0.43698	0.44683	0.41990	0.41990	0.43698
8	0.18407	0.63864	0.68068	0.57389	0.41959	0.46380	0.65694	0.55224	0.44889	0.63864	0.63864	0.55224
9	0.07223	0.45539	0.61890	0.62093	0.61759	0.66598	0.62670	0.39406	0.31392	0.45539	0.45539	0.39406
10	-0.25774	0.19985	0.34570	0.37016	0.46084	0.52209	0.35690	0.12818	0.03269	0.19985	0.19985	0.12818

YELL_ST UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K040VEPC	0.60798	0.61110	0.35816	0.24528	0.02999	-0.14044	0.25695	0.61110	0.62041	0.61110	0.61110	0.62041
2	K060VEPC	0.84134	0.81666	0.60475	0.49815	0.26057	0.04180	0.52516	0.81666	0.84280	0.81666	0.81666	0.84280
3	K080VEPC	0.85106	0.88630	0.81999	0.71239	0.49132	0.30352	0.71574	0.88630	0.88153	0.88630	0.88630	0.88153
4	K100VEPC	0.84197	0.88674	0.85853	0.77441	0.58268	0.40038	0.77863	0.88674	0.87655	0.88674	0.88674	0.87655
5	K120VEPC	0.67722	0.78730	0.92310	0.86407	0.72224	0.58065	0.85275	0.78730	0.74103	0.78730	0.78730	0.74103
6	K140VEPC	0.76442	0.85010	0.88170	0.80027	0.62682	0.46969	0.79383	0.85010	0.81777	0.85010	0.85010	0.81777
7	K160VEPC	0.67000	0.77314	0.89130	0.83541	0.70477	0.56598	0.82696	0.77314	0.73021	0.77314	0.77314	0.73021
8	K200VEPC	0.68252	0.73578	0.82484	0.91584	0.80921	0.61279	0.93631	0.73578	0.71845	0.73578	0.73578	0.71845
9	K240VEPC	0.63519	0.74778	0.89054	0.95818	0.92544	0.77723	0.95712	0.74778	0.69980	0.74778	0.74778	0.69980
10	K350VEPC	0.37849	0.54101	0.79539	0.88966	0.93013	0.90667	0.86800	0.54101	0.46361	0.54101	0.54101	0.46361

YELL_ST TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - MEDIAN YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.39048	0.38245	0.21856	0.13825	0.01560	-0.07029	0.14483	0.38245	0.39331	0.38245	0.38245	0.39331
2	0.65424	0.61881	0.44682	0.33995	0.16609	0.02533	0.35838	0.61881	0.64689	0.61881	0.61881	0.64689
3	0.69942	0.70976	0.64028	0.51378	0.32700	0.19439	0.51620	0.70976	0.71508	0.70976	0.70976	0.71508
4	0.76173	0.78172	0.73798	0.61483	0.42691	0.28229	0.61818	0.78172	0.78274	0.78172	0.78172	0.78274
5	0.61268	0.69405	0.79348	0.68602	0.52916	0.40939	0.67703	0.69405	0.66172	0.69405	0.69405	0.66172
6	0.70107	0.80319	0.85625	0.76050	0.54969	0.39638	0.75438	0.80319	0.76147	0.80319	0.80319	0.76147
7	0.61077	0.72631	0.86089	0.79794	0.62121	0.48007	0.78988	0.72631	0.67595	0.72631	0.72631	0.67595
8	0.44119	0.50108	0.58886	0.74377	0.73137	0.57915	0.76040	0.50108	0.47701	0.50108	0.50108	0.47701
9	0.35532	0.44585	0.56214	0.70498	0.77120	0.68185	0.70421	0.44585	0.40452	0.44585	0.44585	0.40452
10	0.10874	0.17912	0.29644	0.44213	0.57014	0.60314	0.43137	0.17912	0.14348	0.17912	0.17912	0.14348

YELL_ST UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - HIGH FLOW YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K04DVEPC	0.61110	0.47826	0.14548	0.08764	-0.16217	-0.41483	0.06993	0.57627	0.57627	0.57627	0.57627	0.61110
2	K06DVEPC	0.81666	0.68979	0.38617	0.35205	0.02025	-0.25099	0.32660	0.75330	0.75330	0.75330	0.75330	0.81666
3	K08DVEPC	0.88630	0.85836	0.65785	0.57193	0.28459	0.01938	0.55284	0.87933	0.87933	0.87933	0.87933	0.88630
4	K10DVEPC	0.88674	0.86976	0.73075	0.66525	0.38383	0.13575	0.64681	0.86892	0.86892	0.86892	0.86892	0.88674
5	K12DVEPC	0.78730	0.89193	0.86397	0.79016	0.56845	0.35023	0.77814	0.85269	0.85269	0.85269	0.85269	0.78730
6	K14DVEPC	0.85010	0.87731	0.78194	0.69843	0.45501	0.22273	0.68398	0.86266	0.86266	0.86266	0.86266	0.85010
7	K16DVEPC	0.77314	0.85784	0.83349	0.77219	0.55455	0.34715	0.76015	0.81798	0.81798	0.81798	0.81798	0.77314
8	K20DVEPC	0.73578	0.79199	0.85885	0.91115	0.60040	0.36823	0.88951	0.75736	0.75736	0.75736	0.75736	0.73578
9	K24DVEPC	0.74778	0.86363	0.93178	0.94221	0.76228	0.49030	0.94867	0.83128	0.83128	0.83128	0.83128	0.74778
10	K35DVEPC	0.54101	0.74612	0.91282	0.89855	0.90602	0.71545	0.92009	0.69363	0.69363	0.69363	0.69363	0.54101

YELL_ST TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - HIGH FLOW

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.38245	0.29185	0.08200	0.04657	-0.08071	-0.19643	0.03691	0.35166	0.35166	0.35166	0.35166	0.38740
2	0.61881	0.50965	0.26353	0.22652	0.01221	-0.14390	0.20871	0.55657	0.55657	0.55657	0.55657	0.62683
3	0.70976	0.67024	0.47445	0.38891	0.18124	0.01174	0.37337	0.68662	0.68662	0.68662	0.68662	0.71895
4	0.78172	0.74763	0.58017	0.49799	0.26909	0.09055	0.48088	0.74691	0.74691	0.74691	0.74691	0.79184
5	0.69405	0.76668	0.68594	0.59149	0.39852	0.23361	0.57853	0.73296	0.73296	0.73296	0.73296	0.70304
6	0.80319	0.85198	0.74308	0.62579	0.38181	0.17782	0.60867	0.83775	0.83775	0.83775	0.83775	0.79157
7	0.72631	0.82857	0.79610	0.69541	0.46772	0.27857	0.67991	0.79007	0.79007	0.79007	0.79007	0.71569
8	0.50108	0.56541	0.69749	0.80181	0.57104	0.36748	0.78955	0.54068	0.54068	0.54068	0.54068	0.48851
9	0.44585	0.54515	0.68557	0.76131	0.67360	0.45984	0.77422	0.52473	0.52473	0.52473	0.52473	0.43225
10	0.17912	0.27808	0.45364	0.52372	0.60957	0.52748	0.54516	0.25852	0.25852	0.25852	0.25852	0.16743

YELL_ST UNADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	_NAME_	JA_DVEPC	FB_DVEPC	MA_DVEPC	AP_DVEPC	MY_DVEPC	JN_DVEPC	JL_DVEPC	AU_DVEPC	SP_DVEPC	OC_DVEPC	NO_DVEPC	DE_DVEPC
1	K04DVEPC	0.92651	0.60798	0.57627	0.42038	0.19597	0.11578	0.52926	0.75782	0.84376	0.60798	0.60798	0.75782
2	K06DVEPC	0.89946	0.84134	0.75330	0.64874	0.42172	0.36444	0.72375	0.92697	0.93993	0.84134	0.84134	0.92697
3	K08DVEPC	0.77906	0.85106	0.87933	0.83942	0.67887	0.59914	0.87088	0.88868	0.86027	0.85106	0.85106	0.88868
4	K10DVEPC	0.59676	0.84197	0.86892	0.86345	0.74201	0.68421	0.87099	0.81451	0.73715	0.84197	0.84197	0.81451
5	K12DVEPC	0.35488	0.67722	0.85269	0.90761	0.86280	0.81218	0.87329	0.59660	0.49721	0.67722	0.67722	0.59660
6	K14DVEPC	0.52519	0.76442	0.86266	0.87863	0.78831	0.72337	0.87145	0.72974	0.65610	0.76442	0.76442	0.72974
7	K16DVEPC	0.29869	0.67000	0.81798	0.87429	0.83050	0.78970	0.83878	0.57124	0.45789	0.67000	0.67000	0.57124
8	K20DVEPC	0.22159	0.68252	0.75736	0.80666	0.85905	0.89857	0.77555	0.54466	0.40612	0.68252	0.68252	0.54466
9	K24DVEPC	0.37206	0.63519	0.83128	0.87569	0.93736	0.94438	0.84863	0.56378	0.47984	0.63519	0.63519	0.56378
10	K35DVEPC	0.23956	0.37849	0.69363	0.76905	0.91162	0.91030	0.72120	0.32836	0.28013	0.37849	0.37849	0.32836

YELL_ST TOPWIDTH ADJUSTED CORR. COEFFICIENTS OF HISTORICAL/OPERATIONAL VELOCITIES FOR DISTANT CHANNEL CATEGORY - LOW FLOW YEAR

OBS	JA_DVADJ	FB_DVADJ	MA_DVADJ	AP_DVADJ	MY_DVADJ	JN_DVADJ	JL_DVADJ	AU_DVADJ	SP_DVADJ	OC_DVADJ	NO_DVADJ	DE_DVADJ
1	0.79489	0.39048	0.35166	0.25653	0.11045	0.06242	0.32298	0.51936	0.61982	0.39048	0.39048	0.51936
2	0.86461	0.65424	0.55657	0.47932	0.28779	0.23789	0.53474	0.76917	0.83598	0.65424	0.65424	0.76917
3	0.70288	0.69942	0.68662	0.65545	0.48961	0.41332	0.68002	0.77931	0.80863	0.69942	0.69942	0.77931
4	0.47235	0.76173	0.74691	0.74221	0.58911	0.51960	0.74869	0.78630	0.71153	0.76173	0.76173	0.78630
5	0.28089	0.61268	0.73296	0.78016	0.68501	0.61679	0.75067	0.57594	0.47993	0.61268	0.61268	0.57594
6	0.29069	0.70107	0.83775	0.85326	0.74913	0.65753	0.84629	0.61628	0.49959	0.70107	0.70107	0.61628
7	0.16312	0.61077	0.79007	0.84446	0.79325	0.72149	0.81016	0.47905	0.34577	0.61077	0.61077	0.47905
8	0.04252	0.44119	0.54068	0.57589	0.69765	0.77616	0.55367	0.30263	0.18259	0.44119	0.44119	0.30263
9	0.02814	0.35532	0.52473	0.55276	0.68967	0.74674	0.53568	0.26091	0.16904	0.35532	0.35532	0.26091
10	-0.06895	0.10874	0.25852	0.28663	0.45305	0.51188	0.26879	0.05662	0.01151	0.10874	0.10874	0.05662

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Increased demand for water resources in the main stem Missouri River that is regulated by Corps of Engineers' dams has intensified the conflict between the economic benefits of stream regulation and the need to protect lotic ecosystems. Impact assessment methodologies that are quantifiable, repeatable, acceptable, and defensible are required by the U.S. Army Engineer Division, Missouri River, to mediate conflicts between water resources development and natural resource preservation. The Riverine Community Habitat Assessment and Restoration Concept (RCHARC) provides fish habitat information that can be used in trade-off analyses of competing water uses. This report presents an application of the RCHARC to the tailwaters of Gavins Point Dam, Fort Randall Dam, Garrison Dam, and Fort Peck Dam to assess the effects of different release alternatives on habitat for native riverine warmwater fishes.

Application of the RCHARC to the regulated Missouri River requires four steps. First, a comparison standard must be selected against which the project

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alternatives can be contrasted. Second, hydrologic and hydraulic features of the standard having fish habitat significance are described and summarized as an annual series of monthly depth or velocity frequency distributions. Third, a similar approach is used to describe hydrologic and hydraulic features of the project alternatives. Fourth, the habitat value of each of the project alternatives is determined by similarity of the depth or velocity distributions to the standard. The more similar an alternative is to the standard system, the higher it will be ranked. The concept was developed and evaluated for Gavins Point Dam and was applied to the other three dams.